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ABSTRACT

Detailing the development of a sequential career education program for grades 4-12, the report describes the following program components and the techniques used to accomplish their objectives: guidance and counseling model program (grades 6-12), career awareness at the elementary level (grades 4 and 5), career orientation and exploratory experiences at the middle school level (grades 6-8), and the high school job preparation program. Third party evaluators from Teachers College, Columbia University concluded that the project achieved its basic goals and was generally enthusiastically accepted. Their evaluation included a report of the degree of success obtained for behavioral objectives at the elementary and middle school levels, elementary student evaluations, and results of the Career Development Inventory given at the high school. Eighteen detailed program recommendations are listed. A four-page reference list and a glossary are included. Appendixes (158 pages) contain: elementary and middle school goals, behavioral objectives and coordinated activities, a list of occupational cluster related activities, high school objectives, content of civics and experimental career guidance programs, conference and workshop schedules, the career development inventory, Columbia University's formative evaluation reports, reaction sheets from career education staff, career education brochure, and the research evaluation design. (MS)

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Project No. OEG-0-72-0763
Grant No. V261036L

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RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION

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July 6, 1973

U.S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE

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PREFACE

The Norwalk Research and Development Project focused on establishing a meaningful, comprehensive, well-developed program in Career Education in selected schools on a pilot basis. Programs were offered at all grade levels with a strong guidance component included in grades 6-12. We have received a very favorable response to the program from students, staff and the community and will offer Career Education in all the public schools of Norwalk next year.

This report details the many facets of the program and the techniques used to accomplish the objectives set for the program. Our success in achieving these objectives has been carefully measured by an evaluation team from Columbia University. A significant positive reaction was found in all phases of the program.

A new innovative program of this type must tap the resources of the total educational, business and industrial community. We are grateful for the tremendous cooperation and assistance given to us in this project. It is impossible in these few pages to note all of the contributions to this program, but I would like to acknowledge the support of the Norwalk Board of Education and the Superintendent of Schools, Dr. Richard C. Briggs. Dr. Briggs' personal involvement at critical times lent credence to the program and gave the necessary impetus to all involved. Dr. Vincent C. Cibbarelli, Assistant Superintendent for Instruction, provided continuous counsel for the Director and gave valuable assistance in the liaison with participating schools. Active participants in an advisory capacity were Dr. Edward McEnroe, Director of Pupil Personnel; Dr. Donald Buckley, Director of Teacher Personnel; and Dr. Norman Walsh, Director of Research.

Participating schools were selected upon the avowed interest of the staff, under the leadership of their principal, in Career Education. I wish to acknowledge the total support of the following principals:

Mr. William Moore, Norwalk High School
Mr. Dickon Hunter, West Rocks Middle School
Mr. Benjamin Isenberg, Nathan Hale Middle School
Miss Edith Vogel, Tracey Elementary School
Mr. John Ryan, Naramake Elementary School
Mr. Arthur Perschino, Roosevelt Elementary School

Our evaluative team from Columbia University, Dr. Thomas Niland and Dr. David Garrahan, proved to be resource people as well as an evaluative group. They shared their wide experience in similar programs to provide new dimensions to our total Career Education program. Their recommendations for a continued expansion of the program have been incorporated in our plans.

I would like to express sincere appreciation to the fine staff, who, under the leadership of Dr. James Medved, Coordinator of Career Education, implemented the program. They gave unselfishly of their time to research and developing meaningful activities in Career Education and presenting them to our student body.

Administrative Component

Dr. James Medved, Coordinator
Mr. William Reilly
Mrs. Nancy Kurhan

High School Component

Dr. William Stubbs
Mr. George Jewett
Mr. Jack Kimberley
Mr. Leonard Tompakov

Middle School Component

Mrs. Judith Petropulos
Mr. Francis Gorner
Mr. Donald Tracey

Elementary School Component

Mrs. Jo Merle Waldron
Miss Nancy Feijo

This program received its original impetus and operated under the continuous consultive services of the State Division of Vocational Education, Mr. Joseph Murphy, Associate Commissioner; Mr. Saul Dulberg, Career Education Consultant, and Mr. Richard Wilson, Research Consultant.

SUMMARY

The total Career Education program was sequential, composed of elementary, middle school and high school components. In order to develop and maintain the program, ten positions were created: the Director, the Coordinator of Career Education, a High School Career Guidance Specialist, a High School Cluster Specialist, a Middle School Career Guidance Specialist, a Middle School Career Exploration Specialist, a Media Specialist, a Secretary, and two Elementary School Career Education Specialists.

I. Guidance and Counseling Component

In brief, during the Career Education program the following programs were implemented in selected schools:

A. A strong overriding component in grades 6 - 12 was used to augment and strengthen guidance and counseling services.

B. In grades 4 and 5 of Naramake, Roosevelt and Tracey Elementary Schools, we developed and implemented a program of career awareness.

C. In the Nathan Hale and West Rocks Middle Schools that receive students from these elementary schools, we developed and implemented a comprehensive program of Career Education. This included multi-media uses, field trips and work experiences laboratories covering clusters of career areas.

D. In Norwalk High School, we continued with a strong guidance concept and augmented our existing programs of career preparation.

Counselors participated in a four day in-service education program during August of 1972. Major objectives of this in-service program was to familiarize the counselors with career development theory and practice, to provide opportunities to explore the world of work within the community, and to emphasize school responsibility in placing each exiting youngster in a job, in a post-secondary occupational program, or in a baccalaureate program.

An in-service training program was planned and operated with assistance from consultants from the State Department of Education and from the local school system. During the time interim of January until June (1972), the counseling staff thoroughly reviewed the literature to identify other effective career guidance projects, promising approaches, techniques and materials. Specific determination of research and development projects was made and rigorous research methodologies were employed.

A complete and articulated model program of guidance and counseling in grades 6 - 12 was carried on, having the following characteristics:

(1) It was based on systems concepts: specific, measurable behavioral objectives; specific, well-defined replicable treatments; clear specification of multiple criteria for success of project.

(2) It was based on sound guidance and counseling theory and research.

(3) It stressed program objectives which are realistic possibilities within the resources of the participating schools.

The objectives of the Guidance and Counseling Model Program were the following: To help students (1) to develop a positive self-concept; and to understand their capabilities and their career potentials; (2) to understand the world of work; (3) to explore and to analyze occupational clusters, specific jobs, and job requirements; (4) to explore and to formulate tentative career choices; (5) to plan wisely for one's career and to obtain appropriate placement in high school, a job, a post-secondary occupational program, or a baccalaureate program.

To assist students in attaining the above objectives, a variety of treatment activities were performed. These are described in full in the Methods Section.

II. Elementary School Component

The program at the elementary school level, in grades 4 and 5, was designed to increase the career awareness of students in terms of the broad range of options open to them in the community and the general world of work. Students studied the economic significance of their community's make-up and geographic location, its industries, and occupations found in the community, in other communities, and in almost every community. To facilitate this study, several techniques were employed: (1) a series of video tapes providing a study of the community, its industries, and various occupations; (2) class visits to several local companies; (3) class visitors (local) from various occupations; and (4) class projects aimed at giving students the feel of work and work process through cooperative effort using a "cluster" of skills. Each technique was employed in a different school or class and then employed together and compared with the other techniques to measure each technique's effectiveness.

III. Middle School Component

The program at the middle school level (6-8) was designed to provide career orientation and meaningful exploratory experiences for students within the existing unified arts program, utilizing existing unified arts facilities and equipment. The program was a mixture of occupational orientation and actual "hands-on" work experiences in simulated occupational cluster settings.

In exploring each of these first two areas, different techniques were employed, compared, and measured for effectiveness. Students (1) viewed video tapes and other audio-visual materials depicting the working community, various industries and work processes, and several selected occupations; (2) became familiar with actual job specifications; (3) visited different local companies; and (4) were paid visits by different workers.

IV. High School Component

The program at the high school level was designed to provide job preparation in a wide variety of occupational areas, with special emphasis on the utilization of work experience and cooperative education opportunities for all students. Students in the early high school grades attempted to identify for themselves (1) those occupations for which a very positive occupational outlook has been projected, as well as (2) specific occupations in which they are interested. To do this, students were given materials and viewed audio-visual presentations illustrating the nature and specifications of those emerging or expanding occupations. They paid "on-the-job" visits to occupations of interest to them and participated in lab experiences (in school) geared to simulate those occupations.

INTRODUCTION

1. Background or Setting

The Norwalk Career Education Project began actual operation early in the Spring of 1972. Though the grant indicates that funding began on January 7, 1972, some time elapsed before actual word of the awarding of the grant was made public and before the mechanics of retrieval of the funds could go into operation. Thus, it was into the month of March before operations got under way.

In the earliest days of the project, the project staff consisted of only the Project Director, the Coordinator, and a Secretarial Aide. The Project Director was involved with many administrative duties; and the Coordinator with curriculum development. Because of the small existing staff and the relatively short period of time before the project would become operational in the schools (5 months, including a 2½ month summer recess), it seemed prudent and efficient for the Coordinator to assume full responsibility for developing the goals and objectives for the program, for writing curricula, and for selecting and obtaining instructional materials. (At the end of section will follow both the process objectives for the elementary and middle school components as well as the product objectives for all the levels of the program. Included with the goals and objectives for the elementary and middle schools are the activities, techniques, and materials used to achieve those goals and objectives.)

Prior to writing the grant proposal (letter of intent), it had been the decision of those involved to make the Norwalk project developmental and sequential in nature -- reaching all grade levels, 1-12. However, because of the size of the Norwalk system (17,000 students -- 18 elementary schools, 5 middle schools, and 2 high schools) and the nature of the project grant applied for (Part C, Research and Development), it seemed impractical, if not impossible, to try to locate the project in all schools. It seemed a more judicious use of personnel, time, and money to experiment in 6 schools (3 elementary, which fed into 2 middle, which in turn fed into 1 high school) and to use the students of the remaining schools as the control group against which the effects that the program had had on the students in the "experimental" schools could be compared.

We felt a definite need to develop and refine and closely evaluate a strong and effective program in a few schools in our system, that could then be transported (after being repackaged) to all schools and students in the entire system.

We in the Norwalk schools feel an intense commitment to Career Education: both because of the goals of and rationale behind Career Education, and because of the make-up of the Norwalk community.

Norwalk is a city of 33,000, forty-three miles from New York. It is home to many commuters but is also an industrial center. It is estimated that about as many people commute "in" to Norwalk's industrial shops as "out" to New York. There is a large minority group of black and Spanish-speaking people.

The school system in 1972-73 included 17,823 students -- 8,673 elementary, 4,020 middle school, 4,632 high school, and 498 in special educational programs. Minority groups of the total school enrollment included 18% black and 4% Spanish-speaking. Bussing is utilized to accomplish a uniform school balance.

Norwalk is a highly industrialized city, located in Fairfield County. Occupations from all 15 clusters can be found in Fairfield County, while in Norwalk alone there are people employed in occupations from 14 of the clusters. Norwalk, as a community, experiences some of the employment problems and educational difficulties attendant upon any large, highly industrialized urban center with a high proportion of minority people. Therefore, the obvious need for and commitment to Career Education is even more pronounced among educators in Norwalk than it might be in a community of a different make-up.

2. Methodology and Findings

From March through April, the Coordinator collected curriculum materials and instructional guides from all over the country. All government (federal and state) publications concerning Career Education were obtained. The current and relevant theories and research relating to career development and vocational guidance was reviewed. Various commercial publications were also purchased and all the existing instructional programs and curricula in every subject area in the Norwalk school system were studied. Many trips were made to conferences, workshops, and other school systems pioneering in Career Education.

Finally, using the U.S.O.E.'s suggested model for Career Education as a guide, culling from the written resources and research and observed information (federal, state, commercial, theoretical, research, and local -- Norwalk's and other school system's), and keeping the existing Norwalk instructional programs in mind, the Coordinator began to generate a series of goals, objectives, and suggested activities which could and would be translated into Norwalk's Career Education program. Once such goals, objectives, and activities had been generated, instructional materials were selected, purchased, or developed.

In mid-April, the Career Education Media Specialist was hired. He, along with the Coordinator, began to film a series of video tapes, illustrating occupations (in Norwalk) that corresponded to various clusters. Six such video tapes (representing 6 clusters) were developed. With actual sound, but no narration, they were shown to middle school students and were well-received. However, the cost of producing such tape (both in time and money) was prohibitive.

At this same time, the Media Specialist also began the manufacture of a number of games, developed by Dr. Harold Munson, University of Rochester (N.Y.), that were demonstrated by Dr. Munson at a state-wide Career Education workshop at the University of Bridgeport. These CISAG games have been used successfully at both the elementary and middle school levels.

As the year progressed, the Media Specialist was involved in the production of a filmstrip for the middle school program, the taking of all pictures of activities in the Career Education program, the preparation of our Career Education brochure, the maintenance and repair of all A-V equipment and materials, and the purchase and distribution of all supplies in general. He was an indispensable member of the Career Education staff.

For the Coordinator, the remainder of the 71-72 school year was spent previewing and ordering instructional materials for the following year. During this time, several important trips were taken to conferences and workshops.

The Local Project Coordinator (Dr. Medved) and the State Project Coordinator (Mr. Dulberg) traveled to Baltimore to visit Dr. John Holland of Johns Hopkins University. They discussed with Dr. Holland the use of his Self-Directed Search (SDS) in the Norwalk program. With assistance from Dr. Holland, Dr. Medved field tested an abbreviated version of the SDS for use with middle school students. The abbreviated version has been well-received by middle school students -- who indicated the taking of the SDS to be one of the most rewarding experiences in their Career Education program. More recently, Dr. Medved worked with Dr. Holland in the field testing of a more simplified version of the original SDS -- the Form E -- which is meeting with even greater success among 7th and 8th graders.

The original SDS, taken in its entirety, is self-administered by 9th graders and other high school students. At the high school level, the results of the SDS are used by the student to select specific jobs within a cluster. In later high school, such jobs thus selected can be explored more intensively. Students can then cultivate the salable skills necessary to perform such jobs.

The Coordinator also attended a state-wide Career Education workshop at the University of Bridgeport. Here he was introduced to the CISAG gaming techniques of Dr. Harold Munson of the University of Rochester. Such CISAG games have been used with a great deal of success in the middle school program.

Other conferences as a result of which policy and theoretical concepts of Career Education were strengthened or formulated were the NERCOE Career Education Conference held at the University of Massachusetts in May, the ETS National Conference on Career Education held in Washington, D.C. in April, and other Career Education conferences sponsored by the State Vocational Division throughout the 71-72 school year.

In the Spring of 1972, the six project schools were selected. It was decided that one high school be involved -- and feeder schools into that high school. Therefore, two middle schools that fed into Norwalk High and three elementary schools that fed into those two middle schools were chosen.

The elementary schools selected were required to meet the following criteria: have a room available as a Career Education Resource Center, be equipped with in-house television, and have an interested staff. Several schools applied, but the number was reduced to three.

Also, in the spring, the third party evaluation team for the project was selected. Letters were sent to five universities in New England and New York. The letter suggested that, if members from the institution were interested, a short proposal of the research design to be employed to evaluate the program should be submitted. The selection of the third party evaluation team (from Columbia University) was then made on the basis of the evaluation the proposals submitted.

Before the 1972-73 school year began the remaining members of the Career Education staff were selected: the Elementary Career Education Specialist, the Middle School Career Guidance Specialist, the High School Career Guidance Specialist, and the Middle School Career Exploration Specialist. With the last of these, a problem ensued.

The man chosen for this position, the former director of a New York State Career-Development Center, backed out of the job at the last moment. A dilemma followed, but the problem was finally resolved when a retired teacher was persuaded by the Director to come on with the program -- within the limitations of his allowed retirement income. Mr. Tracey proved to be a blessing, and created some fine "hands-on" work experiences in the Manufacturing cluster that were transported between the two project schools.

In August, just before school resumed, a workshop was held. Administrators from all the project schools were invited -- as were the counselors from all the secondary-level schools. But, because of the limitations in funds only a few teachers were able to be invited. Though the project has met with great success, it may have been even better received had funds allowed us to invite more teachers from the elementary and middle schools. The workshop received a very positive evaluation from the participants, and was called one of the best ever by the Assistant Superintendent for Instruction.

The first month of the 72-73 school year was one of preparation. The Elementary Career Education Specialist reviewed the goals and objectives already developed. She embellished upon the suggested activities and wrote purchase orders for any additional materials she might need. The Middle School Career Guidance Specialist also reviewed the established goals and objectives and tried to refine the suggested activities. As the year progressed she, too, requested and received additional materials. The Middle School Exploration Specialist was hard at work developing several "hands-on" working experiences. Like the others, he requested additional supplies where he anticipated a need. The High School Career Guidance Specialist had multiple responsibilities: developing a decision-making process aimed at enabling students to assess themselves and make tentative career choices, ongoing research and data collections, and monitoring the "hands-on" skills training projects in different cluster areas. In this last area we were able to give him some well-deserved assistance about two months into the program. What follows are summaries of the methods followed in each of the above-mentioned areas of the program.

The elementary Career Orientation program met with great success. It was decided to concentrate the major thrust of the elementary Career Education program at 4th and 5th grade Career Orientation at the elementary level because many Career Awareness activities (including a social studies directed at career, consumer, and community awareness) was already ongoing in grades 1-3. The Coordinator and Elementary School Career Education Specialist met with staff (and parents) from the project elementary schools and explained the program to them and solicited support. The success of the elementary program was evaluated on the relative success of meeting the objectives established for the program. Therefore, all activities in the elementary program flowed from, were related to, and were directed at those objectives. The Specialist was constantly innovating or creating or revising, but with the goals and objectives of the program in mind. Goals or objectives that seemed inappropriate were modified, changed, or abandoned. The end result is the set of goals, objectives, and activities for 4th and 5th grade Career Orientation that followed at the end of the preceding chapter. These represent the program in its present, refined state -- the program that can now be taken forward and offered to the students in all the elementary schools in the district.

The Elementary School Career Education Specialist conducted activities in a Career Education Resource Center in each of the project schools. She would invite teachers and their classes in on regular intervals and would carry on activities with the students, encouraging teachers to help and participate. This approach was successful, but it was indicated that more staff was needed. To give her assistance, a second Elementary Resource Specialist was hired part-time and assigned to one school. This arrangement proved successful, and high morale, fine cooperation, and a heightened interest continued.

The middle school program was equally successful -- but a few mid-course corrections had to be made. The middle school Career Education program consisted of two components, involving two staff members: the Career Guidance Specialist and the "hands-on", Career Exploration Activities Specialist.

The Career Guidance Specialist's program had three separate levels: 6th, 7th, and 8th. The program at each level consisted of a different set of activities -- related, however, to the activities of the level below and/or above it. All such activities were directed to increasing the student's knowledge of the world of work in general, projections involving the working climate, and the student's awareness of his own interests and aptitudes and his ability to clarify values and goals and self-estimates in terms of his career potentials and occupations that could provide self-fulfillment. The activities found to be the most successful (as well as the materials employed) can be found in the list of goals and objectives that follow.

The success of activities in achieving goals and objectives was closely monitored during the project. As was stated earlier, each level in the middle school had its own set of activities. The Middle School Career Guidance Specialist would meet with youngsters in a systematic manner by meeting all the classes of a different social studies teacher in each of the two middle schools over a two-week period. Thus, by the end of the school year, the Career Specialist had met with every youngster in each of the two middle schools at least for two weeks (ten daily units), and we on the staff had had several opportunities to measure the effectiveness and success of the activities in each of the 3 levels. This formative evaluation of the program at each level, coupled with student evaluation of the program following each two-week interval, led us to adjust the 8th grade program considerably about mid-way through the year, so that the end result can be found following the preceding chapter.

We did discover that the two-week approach was too limiting in its impact on students, though the program as a whole seemed to be extremely beneficial and well-received by them. A recommendation, regarding the repackaging and redistribution of the middle school self-assessment and orientation program, follows in a later chapter.

The other component of the middle school Career Education program was the "hands-on" simulated work activities conducted by the Middle School Career Exploration Specialist.

It became the role of this individual to structure a series of "hands-on" activities that could simulate work in a number of different cluster areas.

These activities would then be explored by all the students in a school, allowing the middle school Career Exploration person to refine his technique.

Activities simulating work in three cluster areas (Manufacturing, Transportation, and Construction) were developed and experienced by youngsters in both middle schools. To get an exposure to manufacturing, students "worked on a plastics-products, injection molding assembly line. Students were introduced to the transportation cluster, by building, flying and learning the aero-dynamic principles of rockets and, then, futuristically projecting (using jobs in the existing transportation cluster) the kinds of jobs to be found in a society where rockets might be the chief mode of transportation. Students (all students, boys and girls, explored the clusters) also got insight into how a house (on a reduced scale) is constructed and who is involved with its construction by building the house (in miniature) themselves -- a different group being responsible for each successive "phase" of construction.

Two other variations of Career Exploration at the middle school level, which were influenced by the research project but developed independently of it by teachers and/or administrators deeply interested in Career Education, will now be discussed.

One group of teachers comprising an interdisciplinary teaching team having the same students structured a project involving all their students. The project was the organization of a news-broadcast organization to build a television studio in school and then broadcast news shows at regular intervals. Students were to apply for and "work" at different "jobs" within the organization.

Another approach to Career Exploration at one of the middle schools in the research project will be implemented in September 1973. In what have been traditionally the weekly activity periods (twirling, pep club, etc.) 15 mini-units each involving the exploration of a different cluster will be offered next year. Each mini-unit, consisting of 9, one hour a week segment, will be conducted by one or more teachers who has or have a particular interest in that cluster area. Each mini-unit will be offered 4 times (4 quarters) a year and will be open to 7th and 8th graders. Each quarter a different group of students will participate. Thus, in his 7th grade year, a student can explore, intensively, 4 clusters of particular interest to him. By the end of his middle school years, a student will have been able to intensively and extensively explore more than half (8) of the 15 clusters -- those 8 being of greatest interest to him.

This approach follows nicely the model of Career Education developed by the U.S.O.E. -- that suggests that after students have been oriented to the 15 clusters in grades K-6, or more particularly, 4-6, they be given an opportunity to explore (in grades 7-9, in our case, 7 and 8) those clusters of major interest to them.

At the high school, two components were in effect: the "cluster" approach to skills training, and the high school career guidance program.

At the high school level, the "cluster" approach to skills training groups together with those courses that hold a relationship to occupations common to a certain cluster. A student may take all such courses, or just one. The object of grouping, or "clustering," such courses is to demonstrate to students how the occupations for which one could prepare by taking "cluster" courses relate to each other.

Three such were in operation this year: Business and Office, Construction, and Communication and Media. One of the clusters, Business and Office, has been operational for some time. It involves those courses preparatory to careers in office or clerical work.

Another cluster, Construction, involved the work done in three courses. The students in advanced drafting drew the plans for a house section. Then the students in advanced woodworking actually built the house section, using the plans drawn in drafting class. The house section was built in the advanced electricity classroom so that it could then be house wired by the electricity students.

At the beginning of the 72-73 school year, the coordination of the two clusters mentioned and the one yet to be discussed (Communication and Media) was difficult. Both the cluster course instructors and the Career Guidance Specialist were busily involved with structuring their individual programs. Therefore, better coordination among or with the cluster settings was needed.

To achieve this coordination, another position on the Career Education staff was filled -- Cluster Coordinator at the high school. This position was filled by a retired executive from industry who had become intensely interested in the Career Education program during the summer workshop to which he had been invited.

The third cluster to go into operation was Communication and Media. Involved were the Journalism classes, the Graphic Art classes, and two clubs, Photography and Radio and Television. The vehicle used to create the relationship between these courses and clubs was, initially, the school newspaper -- which was sorely in need of improvement. However, mid-way during the school year the local senior citizen's organization asked for help with its weekly radio program and the Radio and Television Club responded. By the year's end the other components of the Communication and Media cluster had functioned together to produce the "new" school newspaper. The Journalism classes had contributed the written copy, and the Photography Club, the pictures. Students in Business and Office classes composited the written copy; and, then, the newspaper in the rough went to the Graphic Arts classes, where the newspaper was printed. The newspaper in its final state was acclaimed the "best ever" by those who read it.

A more comprehensive description of the methods and activities is included in the Methods Section and Appendix of this report.

METHODS

I. The Elementary School Component

The program at the elementary school level was designed to increase the career awareness of students in terms of the broad range of options which are open to them in the community and also in the general world of work. Three schools were involved in the elementary school Career Education program, viz., Roosevelt, Tracey and Naramake and it was decided to concentrate the major thrust in the 4th and 5th grades. There were three major goals on the elementary level:

1. To help the students understand that the kinds of people they are, their interests, and their special abilities are related to their future roles in the world of work.

2. To help the students understand a career problem or situation and work out an appropriate solution or behavior pattern for it.

3. To help the students understand the relationship of the educational curricula and the work community.

In order to accomplish these objectives the following procedures were used:

1. During the Spring of 1972, the Coordinator collected curriculum materials and instructional guides from all over the country. All government (federal and state) publications concerning Career Education were obtained. The current and relevant theories and research relating to career development and vocational guidance were reviewed. Various commercial publications were also purchased and all the existing instructional programs and curricula in every subject area in the Norwalk school system were studied. Many trips were made to conferences, workshops, and other school systems pioneering in Career Education. Using the U.S.O.E.'s suggested model for Career Education as a guide, culling from the written resources and research and observed information (federal, state, commercial, theoretical, research, and

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local -- Norwalk's and other school system's), and keeping the existing Norwalk instructional programs in mind, the Coordinator began to generate a series of goals, objectives, and suggested activities which could and would be translated into Norwalk's Career Education program. Once such goals, objectives and activities had been generated, instructional materials were selected, purchased, or developed. During the first month of the 72-73 school year, the Elementary Career Education Specialist reviewed the goals and objectives already developed. She embellished upon the suggested activities and wrote purchase orders for any additional materials she might need. The Middle School Career Guidance Specialist also reviewed the established goals and objectives and tried to refine the suggested activities. The third party evaluators from Columbia University also reviewed the program objectives and responded favorably to their content and appropriateness to the students of the two school levels. (See Formative Report #1). (See Appendix A and Appendix B for the complete set of behavioral objectives and student activities for the elementary and middle schools.)

2. The Coordinator and the Elementary School Career Education Specialist met with the staff and parents from the project elementary schools and explained the program to them and solicited their support.

3. The Elementary Career Education Specialists conducted a program in each of the project schools which put them in contact with each of the fourth and fifth grades for a total of 64 hours (2 hours per week x 32 weeks). The activities pursued during this time were formulated to enable the students to attain the 25 behavioral objectives listed in Appendix A. (The activities are also outlined there.)

4. The Specialists invited teachers to participate in the Career Education activities taking place in their classrooms at regular intervals. During these activity periods the following items were

developed and presented:

a. Introspective activities, such as role playing, Career Education games and interest sheets.

b. "Hands-on" activities, which included working with wood and tools, making of murals and posters.

c. Use of audio-visual materials including filmstrips, films and comic books.

    1) Films were used by the science teacher to show various aspects of marine science.

    2) Filmstrips and comic books dealt with various careers.

d. Role playing activities which were very successful included the following clusters:

    1) Students assumed responsibilities for doing their jobs proficiently and for cooperating with their peers on an assembly-line situation in the manufacture of paper holders. (MANUFACTURING)

    2) Students interviewed each other for jobs in the manufacturing company. (BUSINESS AND OFFICE)

    3) Fourth grade students operated a beauty parlor, barber shop and health spa, serving as both customers and employees. (PERSONAL SERVICES)

    4) A field trip to Bradley International Airport was conducted. Students made murals and posters about the trip. (TRANSPORTATION)

    5) Posters were made to advertise the manufactured products and to illustrate health and safety rules. (MARKETING AND DISTRIBUTION) and (HEALTH)

6) The fifth graders presented a talent show in which they participated as directors, producers, script writers, announcers, stage hands and performers. (FINE ARTS AND HUMANITIES)

7) The fourth graders carved the alphabet into linoleum blocks and printed them. In addition, one class composed a poem and printed it and posted it on the bulletin board. (COMMUNICATIONS AND MEDIA)

8) The fifth grade conducted a recreation club in which students acted as recreation directors and taught their classes some games. (HOSPITALITY AND RECREATION)

9) The resources of the community were tapped for Career Education by having a police officer and a sanitation engineer visit the fourth grades for the Public Service cluster.

e. Of course, behavioral objective evaluation data was generated throughout the 32 week period and is reported in the Findings and Analysis section of this report.

II. The Middle School Component

The middle school program consisted of two major components, involving two staff members: the Career Guidance Specialist and the "hands-on" Career Exploration Activities Specialist. The program had three separate levels to cover the 6th, 7th and 8th grades and the activities were directly related to increasing the student's knowledge of the world of work and to giving him an awareness of his own interests and aptitudes. (See Appendix B for a complete listing of the goals, behavioral objectives and activities of the middle school program.) Two middle schools - Nathan Hale and West Rocks - were involved in the project. The format employed was that of having the Career Education Specialist meet with each of the social studies classes in each of the two middle schools for a two week period -- each class consisting of 30 to 37 students.

A. The guidance component of the middle school Career Education program consisted of the following activities:

1) The viewing of many filmstrips, video tapes and films plus discussions concerning these media.

2) Career games during which students made choices with regard to their career interests and feelings.

3) The interviewing of an adult in the world of work and reporting thereon to the class.

4) Reading and research into the SRA kit briefs, People and Choices Picture folios, Occupational Outlook Handbook, Dictionary of Occupations plus the use of many pamphlets permitted the students to begin researching their own career interests.

5) Taking the Self-Directed Search Inventory (SDS) enabled the 7th and 8th graders to find a job personality category and to investigate an occupation of interest.

6) Reading the Popeye comic books on the 15 career clusters was of great interest to the students.

7) Filling out job applications and discussing them.

8) During Career Month in May, 83 conferences were held; 48 at Nathan Hale; 35 at West Rocks.

B. The other component of the middle school Career Education program was a very successful "hands-on" simulated work activity conducted by the Career Exploration Specialist. These activities simulating work in three cluster areas were very valuable experiences by youngsters in both middle schools. The three cluster experiences were:

1) Plastics products, injection molding assembly line consisting of an excellent mock-up of a true industrial production line. (MANUFACTURING)

2) Aerospace education introducing students to a modern transportation cluster through the building, flying and learning of aero-dynamic principles of rockets. (TRANSPORTATION)

3) Exploration of a construction cluster dealing with how a house is constructed and who is involved in its construction. A house was constructed in miniature and a different group was responsible for each successive phase of the construction.

C. Of course, behavioral objective evaluation data was generated throughout the two week period (for each of the classes) and is reported in the Findings and Analysis section of this report.

III. The High School Component

Career Education at the high school level encompassed two major strategies, the career guidance program and the "cluster" approach to skills training. The exact nature of these two components will be discussed at length later in this section.

The major goals of Career Education at the high school level were to help the student

- learn about the world of work
- determine what he wants to do and can do in it, and
- prepare for it.

We want him

- to be aware of the full range of career opportunities available -- **if** he has the right preparation
- to identify a career area or areas that excite him -- and to build some real desire and motivation
- to develop a plan for bringing about his target choices which we know really are tentative choices
- to take the appropriate developmental steps toward implementing his tentative choice or choices
- to be able to enter the job market with a salable skill or to continue his formal education, i.e., career preparation.

The program employed specific, measurable behaviorable objectives; well-defined treatments that facilitated replication; and multiple criteria of both intermediate and long-range varieties -- all based on sound guidance and counseling theory.

A. "Total School" Career Education Activities

1. Two faculty meetings were held and three Career Education bulletins were issued to acquaint the school staff with the basic concepts of Career Education.

2. A Career Materials Resource Center was established. This Center was materially well-stocked and included basic career resource books, the Chronicle Occupational File, a homemade file of free supplementary materials, Guidance Associates filmstrips (17), audio tapes (74) which were unrehearsed interviews with workers in the field, occupational and motivational posters, and a rather comprehensive collection of career materials catalogs. In order to introduce the students to the use of this Center, a systematic, one-period orientation program was given during which students were instructed in two occupational classification systems (D.O.T. and U.S.O.E.). In addition, the types of materials available and how to use them were demonstrated.

3. From an original tentative pool of 125 objectives, a revised pool of 72 objectives was created for the project. This pool of objectives representing a valuable resource, covered the following subheadings:

    1) orientation
    2) understanding myself
    3) career exploration
    4) cognitive/attitudinal
    5) skill acquisition
    6) decision making
    7) experiential

4. Career Conferences. The Career Education Specialist and the Cluster Coordinator set up a series of career conferences to provide interested students

with as much exposure as possible to people in occupational fields in which they might be interested. Ten conferences were sponsored in the following areas: automotive mechanics, marketing and distribution, public service, health, construction, manufacturing, communication and media, foreign languages, art and music. The ten conferences spread from December through May had a total attendance of 2,104 people, range 60-500, mean 210.

5. Film Series. A film series, "PROJECT WERC: Why Not Explore Rewarding Careers?", was sponsored from February until May. The eleven films provide essential information about careers that do not require a four-year baccalaureate degree. The films also provided students with an opportunity to become familiar with a wide range of occupational families, to discover career areas that might interest them, and to explore in some depth specific occupational families. The series is considered appropriate for all high school students.

   Films were shown seven periods per day, one day per week, for a twelve week period. Total attendance was 2,592 students. This averaged 236 students for each of eleven films.

B. The Career Guidance Program

This experimental program was experienced by randomly selected students. The two major approaches used were the civics program and the "10-10 Unlimited Program."

1. Civics. The Career Education effort through civics represented an initial attempt to meet the perceived need of integrating Career Education into the curriculum. It provided a core of basic career-related experiences to ninth grade students. The prime vehicle was "Americans at Work," an existing teaching unit in civics. This involved five classes of civics, with 140 students and two teachers meeting from April 24 to May 24. Students in these classes represented all ability levels and these classes were selected to provide experimental students because their teachers were highly amenable to this project. There were 116 control

students, each of whom was a member of comparable classes with these two teachers during first semester.

Four devices were employed: 1) Problem-Solving Method, 2) Self-Exploration Kit, 3) Self-Directed Search, and 4) Hoppock's Outline "How to Study an Occupation."

As a final paper for the civics program, students were to write on one of four topics: "My Career Explorations," "Where I'm Heading," "What We Did in Career Education," or "What Should Be Done in Career Education."

In capsule form, treatment activities involved filmstrips/discussions, referenced newspaper articles, the Career Materials Resource Center, lectures/discussions, "teacher" tests, structured outlines and handouts, slide presentations, written papers, and formal testing. These activities may, on a self-selection basis, have been supplemented by attendance at career conferences and/or the film series. In addition, career counseling through school counselors may have been an input.

A succinct outline of treatment activities and sequence follows:

I. Orientation

   A. Explanation of program, objectives, resources, expectations of students: discussion -- "Why Work at All?" the importance of work to an individual

   B. Introduction/orientation to Career Materials Resource Center; start of general exploratory reading

II. Self-Examination

   A. Schooling and income, discussion -- factors influencing occupational choice, Super's theory of vocational behavior, presentation of problem-solving method

B. Self-Exploration Kit

III. Evaluation-first test

IV. Self-Examination

A. "Choosing a Career" discussion, Holland's theory of vocational choice

B. Self-Directed Search

V. Career Exploration

A. Population projections and quality of life

B. Explore three occupational areas of interest

C. Hoppock's "Outline for the Study of an Occupation"

VI. Orientation

A. "Jobs and Gender"

B. "Jobs for the 1970's" -- economic outlook

C. Review

VII. Evaluation

A. Test

B. Subjective essay

C. Career Development Inventory

See Appendix D for detailed contents of the civics treatment.

2. The second career guidance experimental approach used with randomly selected students was the 10-10-Unlimited program. Ten-Ten-Unlimited, an acronym-like shortening of a program title that consisted of 1) ten group sessions, 2) ten individual work sessions, and 3) an unlimited number of optional individual sessions evolved from the basic treatment outline. Details of this treatment

will be found in Appendix E. In order to recruit for the 10-10-Unlimited an orientation meeting was held of the students of "D" House and, from the initial population of 429 students, a sub-population of volunteers consisting of 45% of the attendees signed up indicating an interest in participating in the project.

From this sub-population of volunteers, stratified, proportionate, random samples were selected (stratified and proportionate based on grade, sex, race, and scholastic aptitude as measured by their most recent I.Q. score). A total of 91 students were involved in experimental groups with 81 involved in control groups.

See Appendix E for complete content of the 10-10-Unlimited approach.

C. The Construction cluster program represented the "skills training" approach within the high school Career Education component. This third experimental treatment was experienced by 13 volunteer students.

There were two aspects to this program: 1) the in-school residential building; 2) the out-of-school part-time trade related jobs.

1. The in-school residential building was accomplished as follows:
    - a. Students in advanced drafting drew the plans for a house section.
    - b. Students in advanced woodworking actually built the house section using the aforementioned plans.
    - c. The house section was then wired by the advanced electricity students.
2. The out-of-school part-time trade related jobs consisted of:
    - a. Visits with students was carried on with those students interested in job placement.

b. Some students were placed on the job site for observation only.

c. Six students were placed on jobs and regularly evaluated.

d. Approximately 50 businesses were visited personally and another 25 were contacted by mail or telephone.

D. Evaluation

The Career Development Inventory was the main evaluation tool for the "experimental" treatment groups -- civics, 10-10-Unlimited, and the Construction cluster. Comparable control groups to each of the three treatment groups also responded to the instrument. The evaluation results are reported in the Findings and Analysis section of this report.

3. Findings and Analysis

This section of the report is being written by the third party evaluators of the career education project. Our team, Professors Thomas Niland and David Garrahan of the Institute of Field Studies, Teachers College, Columbia University was selected to conduct the evaluative research of the project after a review of five evaluation team proposals. Now, at the conclusion of the 1972-73 exemplary project, we (and the administration of the Norwalk Schools) feel we have successfully implemented the proposed evaluative research design, and hence, our authorship of this section of the report.

Our proposal (see Appendix N) stressed criterion referenced evaluation, formative evaluation, and within and between groups comparisons evaluation. It is appropriate here to paraphrase the five major stages of our evaluation model (pgs. 3-4 of our evaluation proposal - Appendix N) changing the tense from "plan to do" to "did do."

Step 1: Orientation and Planning Conference - August 23, 1972. The third party evaluation team met with the career education staff and representatives of all participating schools to present the research evaluation model. Subsequent discussion of the evaluation model and the career education project model resulted in collaborative modifications, bringing them "in phase" with one another. A tentative schedule of site visits was arranged with the appropriate personnel.

Step 2: Monitoring Project Progress - Each of the two evaluation team members visited the Norwalk project schools and the career education office on twelve different occasions during the 1972-73 project year. Participant observation methods employed were document analysis, structured interviewing and classroom/resource center observations.

The evaluation team was able to gain a familiarity with all printed resource materials, reports, career games, lesson plans, etc. Each career education resource person, project school principal was interviewed several times during the year. Guidance counselors, teachers and students were also interviewed. Classroom and resource/center observations were made. In addition to the on site visits, an evaluation team member accompanied the career education project coordinator and the career education representative from the Connecticut State Department of Education

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to the U.S.O.E. sponsored conference on Career Education at Arlie Virginia, December 17-19, 1972. The evaluation team met with the Norwalk Career Education Steering Committee and State Senator William Lyons and Mrs. Lyons on December 11, 1972 and with the C.E.S.C. and Messrs. Drewniany, Dulberg and Wilson of the Connecticut State Education Department on January 17, 1973. Information gained from, and discussions held during, these December and January meetings helped shape subsequent career education activities.

Step 3: Instrumentation - The Career Development Inventory was administered during the last week of May, 1973 to 358 high school students. These students represented subjects in the three different experimental treatment groups (10-10 unlimited, Civics Program, and cluster) and appropriate controls for each treatment group. Student scores were analyzed for differences across treatment groups as well as for treatment and control group differences. Quantitative measurements were taken to ascertain student achievement of behavioral objectives at the middle and elementary school levels.

Step 4: Periodic Interim Reports - Two interim reports were submitted October 20, 1972 and February 20, 1973. (Appendices IA and IB .) These reports provided formative evaluation to the project with respect to step 2 and 3.

Step 5: Data collection and analysis - Behavioral objective worksheets which reported the percentage age of student attainment for each of th objectives at each level (grades 4 - 8) were assembled and analyzed.

Post-test only control group design was employed to ascertain post treatment career development inventory differences between and among experimental and control subjects. The principal statistical procedure employed was analysis of variance. The usual descriptive statistics were used to report I.Q. and GPA characteristics of subjects.

It is important at this point to refer the reader to our two formative evaluation reports (Appendices IA and IB) and to present a brief overview of the format of this "findings and analysis" section of this report, We will not give a detailed review of the formative reports (Appendices IA and IB) but we do ask that they be read before continuing with the body of this section. The reports are substantive and did give direction to subsequent activities of the project. In other words, they successfully accomplished the purpose of formative reports.

Our "summative" evaluation report follows. At the elementary and middle school level this will include: 1) the reporting of the degree of success obtained for each of the behavioral objectives, 2) the enumerating of the switches and modifications in objective content and the activities engaged in to prepare the students to attain those objectives, and 3) a detailed report of "soft" data concerning the attitudes toward the program of the career education staff, building principals, teachers, students, and parents.

At the high school level aspects of the formative evaluation reports will be alluded to as they bear on the overall evaluation of the project. The results of the Career Development Inventory which was the criterion measure of success will be presented and discussed. And lastly, the data elicited through interviews with students, teachers, and staff members will be reported.

The career education program at the elementary school level encompassed a career orientation theme. Appendix contains a complete listing of the goals, behavioral objectives, goal activities, and "fifteen cluster" activities for the fourth and fifth grades. Formative reports 1 and 2 discussed goal comprehensiveness, appropriateness, and sequencing. Consequently, the goals and objectives will not be discussed from that perspective here.

Seventeen of the twenty-five behavioral objectives were considered summative of the goals of the elementary program. These seventeen objectives were monitored by the career education staff and the third party evaluators. Following is a list of these objectives and the percentage of students in the fourth and fifth grades of the project schools who attained them.

CAREER ORIENTATION -- ELEMENTARY GRADES

4th Grade

	Goals		Behavior Objectives	% of 4th Gr Achieving T Objectiv
I.	Students will understand that their town has a diverse population.	A-I.	Given the descriptions of 4 typical communities, the student will choose the community most resembling their town.	90.7%
II.	Students will understand that the people of their town are workers in many different jobs—jobs that hold a relationship to the economic level and educational background of the workers themselves.	A-II.	Given the descriptions of 3 working communities (i.e., descriptions of where and how the people of the community make a living), the student will successfully select the working community most closely resembling his own.	88.7%
		B-II.	Given the statement of nature shown below (each statement being a supposition about the relationship between the kind of work a man performs and his economic level and educational background), the student will make the proper response.	75.2%
II.	Students will understand how the geography of a community affects the kinds of jobs found there.	A-III.	Having discussed only 5 geographical factors that could affect the kinds of jobs found in a community (i.e., location (topography), climate, transportation, natural resources, and nearby areas providing markets or competition), the student will underline a factor not discussed when given a list of 6 possible choices.	89.5%

4th Grade (Cont.)

Goals	Behavioral Objectives	% of 4th Grades Achieving This Objective
	B-III. Having discussed only 5 geographical factors that could affect the kinds of jobs found in a community (i.e., location (topography), climate, transportation, natural resources and nearby areas providing markets or competition), the student will underline a factor not discussed when given a list of 6 possible choices.	89.5%
IV. Students will understand that jobs can be grouped into families, or "clusters."	A-IV. Given 6 groups of 3 jobs each (each group representing one of the 6 ways jobs can form a family), the student will choose the job in each group that differs from the others.	88.7%
V. Students will understand that every job can belong to, or is representative of, one of 15 clusters of occupations.	B-V. Given a list of the 15 clusters and a list of 15 occupations, the student will match each of the occupations with the cluster of which it is most representative.	79.1%

4th Grade (Cont.)

Goals		Behavioral Objectives	% of 4th Grades Achieving This Objective
VI. Students will understand that certain clusters of work can be found and/or are needed in almost every community.	A-VI.	Given a list of 15 clusters, the student will choose those clusters of occupations that can be found and/or are needed in almost every community—i.e., public services, personal services, construction, transportation, marketing and distribution, health services, consumer and homemaking related, and hospitality and recreation.	88.7%
VII. Students will understand certain "clusters" can be found in a community particularly because of its population and/or geography.	B-VII.	Given a list of towns in their state (or nearby or adjoining states), the student will select 3 towns having both: (1) a population and/or geography similar to their town's, AND (2) the same clusters of work.	83%
	C-VII.	Given a list of the 15 clusters and descriptions of a number of different kinds of towns or locations, the student will underline the clusters not found in his town and match them with the kind of town or location in which they could be expected to be found.	99%

CAREER ORIENTATION--ELEMENTARY GRADES

5th Grade

Goals	Behavioral Objectives	% of 5th Grades Achieving This Objective
I. Students will understand that the world of work in America has a history of change.	A-I. Given a list of 10 occupations (5 of which were performed in America long ago, and 5 of which are performed in their town presently), the student will check those occupations performed in America long ago.	100%
	B-I. Given a list of 6 possible reasons for change in the world of work in America, the student will check the 3 reasons discussed in class: the use of new and different kinds of power, the growth of automation, and the use of the division of labor and specialization in different types of work.	100%
II. Students will understand that certain characteristics (i.e., abilities, education, physical skills, and working conditions) make some jobs similar and other jobs different.	B-II. Given a number of jobs, the student will select for each of the 4 characteristics indicated in Goal II jobs that are the same or similar because of that characteristic.	100%
	C-II. Given 4 sets of 3 job descriptions, the student will choose the job in each set that differs from the others in: a. abilities b. education c. physical skills	66%

5th Grade (Cont.)

Goals	Behavioral Objectives	% of 5th Grades Achieving This Objective
III. Students will understand that jobs can be grouped into families, or "clusters."	A-III. Given 6 groups of 3 jobs each (each group representing one of the 6 ways jobs can form a family), the student will choose the job in each group that differs from the others.)	97.7%
IV. Students will understand that every job can belong to, or is representative of, one of 15 clusters of occupations.	A-IV. After having been oriented to a cluster, the student will be able to choose, from a list of 10 occupations, the 5 occupations belonging to that cluster.	100%
	B-IV. Given a list of the 15 clusters and a list of 15 occupations, the student will match each of the occupations with the cluster of which it is most representative.	86.1%
V. Students will understand that where one chooses to live and the job or career one chooses to perform may hold a relationship to each other.	A-V. Given a map of the U.S., the student will:	
	a. indicate an area or location whose characteristics would fit the description of the "Place Where He Would Most Like to Live."	100%
	b. AND identify the principle industries of the area or location thus indicated—as well as 5 occupations one could expect	93%

The very high percentage of students who were able to attain these behavioral objectives is reflective of the overall success of the elementary career orientation program. While the career education resource staff did sharpen up the activity strategies for the various objectives as the year progressed, no major shifts in objectives or goal content were necessary. Objective CII, which was attained by 66% of the fifth graders, appears to be related to reading comprehension. This objective is considered very important and will be carried intact into this coming year's "all-schools" program. More time will be devoted to the concepts underlying this objective and the reading level of the criterion performance measure will be lowered.

The career orientation program enjoyed a positive reception this year. As discussed in formative report #2, many anecdotes were collected from the principals, teachers, parents, and, of course, students. The great majority of comments were favorable. The career education staff has listed several of these comments, both positive and negative, for reference in shaping next year's program. As with all programs that are energetic, the elementary orientation program was noticed. After reviewing the "comments list" of the career education staff and our own interview and observation notes, the following will be an attempt to portray a representative summary of community attitude regarding this year's career education in the elementary schools.

- Principals, teachers, and parents were receptive to the idea that career education has a place in elementary school education.

- Children enjoyed the program as they experienced it (a detailed accounting of their responses to specific aspects follows this section).

- K - 3rd grade teachers would like more assistance, ideas, etc. as to how they can implement career education into their classrooms/curriculum.

- Fourth and fifth grade teachers could have better integrated and carried out their own involvement with the program if they had been better informed about the nature and content of the program before the school year got underway.

- Community news coverage was positive toward the "interesting" activities of career education in the elementary schools.

- The "hands on" experiential activities were more favorably responded to by the children than the fact dissemination/instruction presentations, even when filmstrips and films were utilized for the latter.

- The children enjoyed community people visiting with them to discuss their occupations, work roles. There will be more of this type activity planned into the program next year.

- Children carrying home tangible items "manufactured" or assembled as part of the program brought particularly enthusiastic response from parents.

- The "fifteen clusters" concept was not presented in an appropriate manner for the readiness stage of the children. Teachers and principals felt that the children did not fully understand this conceptual framework within which to categorize work roles. Many children confused cluster - work role matchings even with occupations with which they were quite familiar.

- The disorganization of a first year program was in evidence but this situation continually improved as the year progressed.

- "It is a good project, I would like to see it continued."

Following are summary sheets of the fourth and fifth graders' reactions to some of the activities of their program.

Check the appropriate Box. On The Line Next To The Check, Put Your Reason For Making That Choice, OR Make A Suggestion That Will Improve It For The Fourth Grades Next Year.

You Do Not Have To Put Your Name On This Paper.

	☺	😐	☹
1. Manufacturing, Tools and Wood:	94%	4%	2%
2. Business & Office Interview for Jobs:	50	40	10
3. Transportation, Trip to Airport:	88	6	6
Airport Murals	40	35	25
4. Agri-Business & Natural Resources Planting Beans:	45	35	20
5. Public Service - Visitor	60	28	12
6. Personal Services - Beauty Shop Barber Shop, Health Spa:	82	12	6
7. Communication & Media - Printing:	54	38	8
8. Filmstrips with Record	30	32	38
9. Filmstrips without Record	18	30	52
10. Comic Books (Popeye, King Features)	72	28	
11. Career Education Games	78	16	6

Check the appropriate Box. On The Line Next To The Check, Put Your Reason For Making That Choice, OR Make A Suggestion That Will Improve It For The Fifth Grades Next Year.

You Do Not Have To Put Your Name On This Paper.

	☺	😐	☹
1. Manufacturing, Tools and Wood:	90%	6%	4%
2. Business & Office Interview for Jobs:	40	48	12
3. Transportation, Trip to Airport:	84	13	3
4. Marketing & Distributing			
Make Advertising Display:	60	25	15
Sale to 3rd Grade:	55	25	20
5. Fine Arts & Humanities Talent Show:	85	10	5
6. Environmental Control			
Clean-up Outside:	65	20	15
Recycle Junk:	45	35	20
7. Marine Science Films	40	40	20
8. Filmstrips	25	45	30
9. Comic Books (Popeye, King Features)	60	25	15
10. Career Education Game (People/Data/Things):	40	35	25

← (Much objection due to long wai "waiting room", needed more interviewers)

The career education program at the middle school level encompassed a career exploration theme. Appendix B contains a complete listing of the goals, behavioral objectives, and goal activities for grades six through eight.

Nineteen of the thirty-four behavioral objectives were considered summative of the goals of the middle school program. Following is a list of these objectives and the percentage of students in grades six through eight in the project schools who attained them.

MIDDLE SCHOOL CAREER GUIDANCE

6th Grade

Goals	Behavior Objectives	% of 6th Grades Achieving This Objective
I. Students will understand that man both values and ne needs work.	A-I. Given a list containing 6 possible reasons why man works, the student will underline the reason that does not belong in the list.	(1st group worked with: 56% (last group worked with: 92%) Total: 77%
II. Students will understand that every job is unique, having characteristics that make it similar or different from other jobs.	A-II. Given a list of 6 possible factors that cause every job to be unique, the student will underline the factor that does not belong in the list.	58% - 98% Total: 83%
	B-II. Given a list of 5 possible characteristics that make jobs similar or different, the student will underline the characteristic that does not belong in the list.	60% - 90% Total: 82%
	D-II. Given 4 sets of 3 jobs each, the student will choose the job in each set that differs from the others in: (1) abilities (2) education (3) physical skills (4) working conditions	84%

6th Grade (Cont.)

Goals		Behavioral Objectives	% of 6th Grades Achieving This Objective
III. Students will understand (1) that workers must be prepared to enter the world of work in order to succeed, and (2) that school is important to their career preparation.	A-III.	Given examples of 4 workers who were not prepared for the world of work, the student will give evidence of how each worker was ill-prepared.	88% - 99% Total: 94%
	B-III.	The student will be able to identify at least 5 occupations that hold a relationship to or would require a proficiency in his best subject in school.	85% - 87% Total: 86%

7th Grade

Goals	Behavioral Objectives	% of 7th Grades Achieving This Objective
I. Students will understand that career planning is necessary.	A-I. Given a list of 5 possible reasons why career planning is necessary, the student will underline the reason that does not belong in the list. (Career planning is necessary so one can: 1. choose work he will like to perform--to satisfy his interests. 2. choose work he will be able to perform--in the scope of his abilities. 3. properly train for his future employment. 4. be sure that the kind of work one would like to perform still exists when one gets out of school.)	76% - 98% Total: 87%
II. Students will understand that work in America has a nature of change.	A-II. Given a list of 10 occupations, the student will choose: 1. the 5 occupations that were performed in America long ago, OR 2. the 5 occupations that are per-	72% - 93% Total: 83%

7th Grade (Cont.)

Goals		Behavioral Objectives	% of 7th Grades Achieving This Objective
	B-II.	Given a list of 6 possible factors that might have changed and will continue to change the nature of work in America, the student will underline the 3 factors discussed in class: the uses of new and different forms of power, the increase of automation, and the rise of the division of labor and specialization of work.	51% - 73% Total: 64%
III. Students will explore different kinds of jobs associated with each of the 15 "clusters" of work.	A-III.	Given a list of the 15 clusters and a list of 15 occupations, the student will match each of the jobs to the cluster with which it is typically associated.	64%
	B-III.	Given a list of the 15 clusters, the student will check (✓) those clusters of occupations that can be found in Norwalk and will cite an example of a Norwalk working establishment in which occupations associated with each of those clusters can be found.	66%

8th Grade

Goals	Behavioral Objectives	% of 8th Grades Achieving This Objective
I. Students will understand that man both values and needs work.	A-I. Given a list containing 6 possible reasons why man works, the student will underline the reason that does not belong in the list.	100%
II. Students will understand that jobs have no gender.	A-II. Given a number of true and false statements about jobs, the student will make the choices that would indicate jobs have no gender.	78% - 96% Total: 97%
III. Students will understand that workers must be prepared to enter the world of work in order to succeed, AND that school is important to their career	A-III. Given examples of 4 workers who were not prepared for the world of work, the student will give evidence of how each worker was ill-prepared.	96%
IV. Students will explore different kinds of jobs associated with each of the 15 "clusters" of work.	A-IV. Given a list of the 15 clusters and a list of 15 occupations, the student will match each of the jobs to the cluster with which it is typically associated.	62% - 77% Total: 71%
	B-IV. Given a list of the 15 clusters, the student will check (√) those clusters of occupations that can be found in Norwalk and will cite an example of a Norwalk working in which occupations	64% - 75% Total: 70%

8th Grade (Cont.)

Goals	Behavioral Objectives	% of 8th Grades Achieving This Objective
V. Students will understand that jobs can be grouped into one of 6 work environments, each environment attracting workers of different personalities.	A-V. Given a list of 6 personality classifications (Realistic, Intellectual, Artistic, Social, Enterprising, Conventional) and the descriptions of 6 types of people, the student will match the proper classification with the type of person it represents.	76% - 80% Total: 77%
	B-V. Given a list of occupations, the student will classify each of the occupations into one of 6 work	57% - 80% Total: 71%

As indicated by the student attainment percentages, the behavioral objectives at the middle school level were much more ambitious in their demands than were those of the elementary level. As discussed in formative report 2, this situation evolved from the fact that these objectives were originally generated by the project coordinator after he reviewed U.S.O.E.'s suggested model for career education and the objectives of already existing programs (which were also formulated around the U.S.O.E. model). The coordinator, and later the middle school resource personnel and the third party evaluators, did not fully appreciate at that early planning stage the sequential nature of career education concepts - that each new learning subsumes an understanding of the previous concepts. It wasn't until the program was in full operation that the student feedback enabled us to comprehend this fact, that many of the middle school goals of career education are built upon the concepts attended to in the elementary school career orientation program. Consequently, the middle school students never before introduced to many of the career education concepts were experiencing difficulty. This sequencing phenomenon was particularly noticeable with the seventh grade objectives.

After the career education resource person worked with four of the seventh grade groups, it was decided to switch objectives A - IV and B - IV to the eighth grade program as only 30% of the seventh graders were attaining these rather complex objectives. With regard to the other behavioral objectives, numerous activity strategies were modified to increase the numbers of students attaining them. It is a credit to the project coordinator and the middle school resource person that the final percentages were accomplished. The increases in the attainment percentages between the first and the last student groups experiencing the program are reported in the preceding pages.

The middle school career guidance and exploration program (also) enjoyed a positive reception this year. As with the elementary program, many anecdotes were collected from the principals, teachers, parents, and students. These, too, have been noted and are being used as "consumer" input in planning for next year's program. The following is an attempt to portray a representative summary of community attitude regarding this year's career education in the middle schools.

- Principals, teachers, and parents were receptive to the idea that career education has a place in middle school education.

- Students enjoyed the program as they experienced it (a detailed accounting of their responses follows).

- Community response to the May Career Conferences was enthusiastic beyond expectation. Forty-eight conferences were held at Nathan Hale Middle School - representing all fifteen clusters. Conference evaluations - nineteen rated excellent by career education staff, eighteen very good, six good, five fair. Thirty-five conferences were held at West Rocks Middle School - also representing all fifteen clusters. Conference evaluations - sixteen rated excellent, sixteen very good, one good, two fair.

The students demonstrated their approval of the conferences with excellent attendance and a noticeable "new found" ability to discipline themselves. Approximately 90% of the speakers seemed very pleased to speak with the students and expressed an interest to return some time in the future. Approximately 80% of the speakers encouraged field trips to their place of business.

- Community press coverage was very favorable to middle school career education activities.

- Parents saw relevance in the "cluster approach" and commented enthusiastically about the "hands on" activities their children were engaging in.

- Students especially enjoyed "hands on" activities. Girls' comments were very favorable regarding this aspect.

- Social Studies personnel were not happy that their time was taken from them in blocks of two weeks - although they were not negative to the concept and content of the career education program. (This format will not be followed during the coming year).

- "We are going to have more of this next year, aren't we?"

The students at each grade level were given an evaluation sheet (s) after they completed their career education experience. The form consisted of six to ten questions which asked for their responses to the program in general, and specific aspects of the program particular to their grade level. What follows is their general response to the program reported by percentage of students who checked the category pairings.

8th Grade

Did you enjoy the two week career education program? Choose one of the following:

45% a. I liked it very much
b. I would have liked it more if a change or two were made
43% c. I could take it or leave it
d. I did not like it for several reasons
12% e. I did not like it at all

7th Grade

Did you enjoy the two week career education program? Choose one of the following:

73% a. I liked it very much
b. I would have liked it more if a change or two were made
15% c. I could take it or leave it
d. I did not like it for several reasons
12% e. I did not like it at all

6th Grade

Did you enjoy the two week career education program? Choose one of the following:

76% a. I liked it very much
b. I would have liked it more if a change or two were made
c. I could take it or leave it
d. I did not like it for several reasons
e. I did not like it at all

The career education program at the high school level encompassed a career development theme. The emphasis was largely on attitudinal factors as they affect the career development decision-making process. Secondary attention was addressed to information resources, and to some extent - skill development. In short, the principal objective of the high school effort was to enable students to engage in meaningful education and vocational decision-making relatively unencumbered by interference from peer group, parental values and expectations, economic constraints, or inappropriate self concepts. Toward this end a comprehensive program was devised and implemented which included a wide variety of short and long-term activities.

The overall success of these varied activities will be reflected in the performance of various groups of students in the Career Development Inventory. It will not be possible, however, to attribute degrees of success on this instrument by the high school staff. Accordingly, attention will be focused at this point on several of the program activities as they evolved throughout the year.

Career Materials Resource Center: Formative Evaluation Report #1 focused attention on two shortcomings of the Center - the accessibility of materials and the unattractiveness of the setting. These concerns were expressed again in Report #2. The utilization of the Center continued to fall short of expectations into the spring. It was simply too isolated and drab to attract students. Consequently, a decision was reached to move the Center upstairs and locate it in the social studies resource area. Early indications are that the Center is now being used by larger numbers of student and on a more regular basis.

Career Conferences: Formative Evaluation Report #2 cited the widespread positive reaction of both students and teachers with respect to the career conferences. The number of conferences conducted was increased from eight to ten - with a total student attendance in excess of 2,000. Undoubtedly this uncommon success in attracting students was attributed in part to student motivation which was unrelated to career development. Notwithstandi this reality, by all reliable accounts the career conferences had a most pervasive positive influence on the student body.

Film Series (Why Not Explore Rewarding Careers): The student attendance averaged 236 for each film showing. Here again, one must exercise caution in interpreting this apparent enthusiastic student response. Moreover, unlike the career conferences, the value of the film series was not verified in the student interviews. A recommendation in a subsequent section of this report is addressed to the continued use of a film series.

Public Relations and Communication: While one can never do enough in terms of educating the public with respect to a particular aspect of a school program, the staff is commended for what is judged to be an effort of the highest order. Reference is made specifically to the extensive speaking engagements of the staff, the local newspaper coverage, and the quality and scope of printed materials which were widely disseminated. One could not expect more without detracting from the on-going development of the program itself.

Alumni Follow-up, Career Interest Survey, and Employment Survey: While these three related activities logically fell under the career education umbrella, the position was never advanced by the staff that they were central to the program. They were, in large measure, activities which were marginal in character - and, in fact, would have been executed in the normal course of events - had there been no career education project in Norwalk. This condition itself may, in part, account for the fact that this evaluation research team found them to be of minimal value. Early indications were that these surveys would provide data useful in shaping the direction of subsequent career education activities. With hindsight, however, this team should have discouraged the involvement of program personnel in these activities, or have established the clear purpose and relevancy of such efforts within the context of the total program. As it stands, the "survey activity" did not yield results which would justify its being continued - as a special aspect of the high school program. Accordingly, a recommendation to that effect has been made.

Formative Evaluation Reports #1 and 2 both drew attention to what was perceived as a lack of coordination among project personnel, as well as various aspects of the total project. The evaluative feedback was not critical because of a concern that this might cause the staff to be preoccupied with relationships and draw energy away from the project. It was noted, however, and in retrospect it is the studied judgment of the research team, that this was a problem which detracted from the total effectiveness of the project. It is clear that the coordination between the high school and other building units was lacking. Within the high school, itself, there were scheduling problems, role confusion, time delays, and scattered instances where "the right hand was not sure what the left hand was up to." While this condition never reached proportions where it would be considered serious, there was considerable room for improvement. Our recommendations speak to this point.

The impact of the major thrust of the project at the high school level was assessed by the results of student performance on the Career Development Inventory (see Appendix H for sample copy and a description of instrument). Stated briefly the C.D.I. is a 91 item paper and pencil alternative choice inventory. It yields three scale scores, two of them attitudinal and one of them cognitive, plus a total score. The aggregate of the scales represents an overall measure of vocational maturity as defined by the individual scales. The instrument was administered to 358 students distributed among the three treatment groups (ten-ten-unlimited, CIVICS, and cluster) and three control groups. The C.D.I. was administered during the last week in May to 358 students - 198 experimental, 160 control.

Subjects

The subjects were randomly selected for inclusion in each of the three experimental and three control groups. For example, fifty per cent of the available volunteers for the ten-ten-unlimited treatment were randomly chosen to actually receive the treatment and the remaining fifty per cent were designated control subjects. As can be seen in Table I, the random selection of subjects did not yield comparable groups in all instances. The weighted mean across the three treatment groups for I.Q. was computed to be 111.39 as against 104.13 across the control groups. On the surface, with standard deviations between twelve and fifteen for these groups, one must exercise caution in comparing the two total groups. However, an examination of the grade point averages suggests that in terms of scholastic productivity the experimental and control groups were more evenly matched. The weighted mean on G.P.A. for the treatment group was calculated to be 2.59 and for the control group 2.36. Nonetheless, the following results are to be interpreted within the context of these data with respect to the comparability of the experimental and control groups.

Results

The criterion measure of success in this study was vocational maturity as measured by the Career Development Inventory. The C.D.I. includes three separate scale scores: Planning Orientation.(P), Resources for Exploration (R), and Information and Decision Making (I). Table II presents the means and standard deviations for the three scales and the total scale score by group. It should be noted that all results are reported in the form of standard scores having a mean of 50 and a standard deviation of 10. By inspection it can be seen that the total row means across groups are in

TABLE I
CHARACTERISTICS OF SUBJECTS
by Group

(N = 358)

Group *	I.Q.			G.P.A.		
	Mean	Standard deviation	N	Mean	Standard deviation	N
A	113.60	14.09	47	2.65	.75	52
A'	111.44	12.47	45	2.69	.60	48
B	111.40	16.36	124	2.61	.87	125
B'	100.89	15.88	96	2.24	.81	97
C	109.68	11.87	19	2.39	.65	20
C'	103.58	12.46	12	2.07	.63	13

* Where A = 10-10-unlimited treatment group   A' = the control for A

B = CIVICS treatment group   B' = the control for B

C = Cluster treatment group   C' = the control for C

TABLE II
Means and Standard Deviations on CDI Scales by Group

			CONTROL GROUPS		
C.D.I. Scales		A' (N=48)	B' (N=99)	C' (N=13)	TOTAL (N=160)
	MN	49.270	46.171	47.973	
P	SD	10.270	9.379	11.700	47.243
R	MN	52.062	46.575	45.846	
	SD	8.694	10.301	10.415	48.161
I	MN	53.625	45.202	49.923	
	SD	8.099	10.311	10.904	48.112
T	MN	51.666	45.787	46.076	
	SD	9.397	10.004	9.482	47.574
			EXPERIMENTAL GROUPS		
		A (N=52)	B (N=126)	C (N-20)	TOTAL (N=198)
P	MN	53.403	51.928	50.900	
	SD	9.176	10.048	7.615	52.211
R	MN	54.269	50.349	50.850	
	SD	10.748	8.890	9.554	51.429
I	MN	53.192	50.634	52.200	
	SD	7.945	9.963	10.159	51.463
T	MN	53.634	51.023	51.000	
	SD	10.203	9.245	8.472	51.964

every case lower for the control subjects when compared with the corresponding row means for the experimental subjects. The reader is cautioned about making comparisons involving the scores for both experimental and control C and C' groups. These two groups represent the cluster treatment and cluster control subjects. However, the number of subjects tested is too small to permit generalizations.

In order to test the statistical significance of the data reported above an analysis of variance was employed. The following tables report the statistical tests of the differences among means for each of the individual scales and for the total C.D.I. score. As indicated in Table III there was a statistically significant difference between the experimental and the control groups on the Planning Orientation scale. The F - ratio (9.578) reaches significance at the .01 level. In effect what is being reported is that the numerical difference between total means (47.243 vs. 52.211 - see Table II) across groups on this scale is significant. The F

TABLE III
ANALYSIS OF VARIANCE: PLANNING ORIENTATION

SOURCE OF VARIATION	SUM OF SQUARES	df	MEAN SQUARE	F
Within cells	33243.159	352	94.440	-
Control/experimental	904.629	1	904.629	9.578 **
Groups (A,B,C)	196.017	2	98.008	1.037
C/EX Groups	53.414	2	26.707	.282

ratios in Table III further indicate that this experimental-control difference does not vary as a function of group (A,B,C). In short, it cannot be said that the Civics treatment worked better than the Cluster treatment - though the numerical means point in that direction. On the Resources for Exploration scale the experimental subjects, again taken as a combined treatment group, out-performed the control subjects. Table IV indicates a main effect F - ratio (7.070) which is significant at the .01 level. Again, what is indicated is that the numerical means across the three treatment and three control groups (see Table II) are significantly different. That is, the difference between the control group mean (48.161) and the experimental group mean (51.429) did not occur by chance. It is interesting to note in Table V that while there were differences among means of individual treatment and control groups, the overall difference across the two sets of groups was not statistically significant. The difference between the means was numerically different and in the expected direction, favoring subjects who received the treatment, but not statistically different. That is, this difference could have occurred by chance. Table VI presents an analysis of variance for the total C.D.I. instrument. It can be seen that the F - ratio (10.256) reaches significance at the .01 level. Taken as a whole, then, the differential performance between the combined treatment groups (A,B,C) and the combined control groups (A',B',C') was statistically significant.

TABLE IV
ANALYSIS OF VARIANCE: RESOURCES FOR EXPLORATION

SOURCE OF VARIATION	SUM OF SQUARES	df	MEAN SQUARE	F
Within cells	32762.102	352	93.074	-
Control/experimental	658.062	1	658.062	7.070 **
Groups (A,B,C)	980.284	2	490.142	5.266 *
C/EX Groups	57.852	2	28.926	.310

TABLE V
ANALYSIS OF VARIANCE: INFORMATION AND DECISION MAKING

SOURCE OF VARIATION	SUM OF SQUARES	df	MEAN SQUARE	F
Within cells	32520.615	352	92.388	-
Control/experimental	290.580	1	290.580	3.145
Groups (A,B,C)	984.421	2	492.210	5.327 *
C/EX Groups	274.946	2	137.473	1.487

TABLE VI
ANALYSIS OF VARIANCE: TOTAL C.D.I. SCORES

SOURCE OF VARIATION	SUM OF SQUARES	df	MEAN SQUARE	F
Within cells	32397.121	352	92.037	-
Control/experimental	943.952	1	943.952	10.256 **
Groups (A,B,C)	946.971	2	473.485	5.144 *
C/EX Groups	36.519	2	18.259	.198

The differences were obviously in the expected direction with the experimental subjects evidencing a considerably higher level of vocational maturity as measured by the Career Development Inventory. Since none of the C/E X Groups F - ratios were significant it was not necessary to conduct further tests to determine which treatment group (s) accounted for the overall difference between the total experimental and control groups. It should also be noted that the Groups (A,B,C) F - ratios for Resources For Exploration, Information and Decision Making, and Total C.D.I. scales did reach significance at the .05 level. Several of these means were subjected to t-tests with the result that they were either not significant or barely reached significance at the .05 level. Within the total context of this evaluation the investigators judged that reporting differences of this nature might lead to misinterpretations regarding the relative efficacy of the various treatments. A casual review of the small differences between the numerical means leads one to conclude that no particular attention should be addressed to them.

Supplementary Analysis

The investigators explored the possibility of sex differences with respect to performance on the C.D.I. It should be noted at this point that during interviews with subjects there was no evidence of male-female differences regarding their responsiveness to the treatment activities. Moreover, Super reports in the C.D.I. manual, "Tests for significance of differences between means and between variances of samples of 200 boys and 200 girls with the present three-scale revision of the C.D.I. revealed no sex differences." In the present investigation the CIVICS treatment group was broken down by sex in terms of their total C.D.I. scores. The mean for boys was 51.200 with a standard deviation of 10.866, while the mean for girls was 50.750 with a standard deviation of 9.913. The observed numerical means differed slightly, but by inspection this difference was not statistically significant. Likewise, the male and female subjects in the ten-ten-unlimited treatment group had means of 53.263 and 53.650 respectively with standard deviations of 10.613 and 10.363. On the basis of both interview and empirical data, it was concluded that treatment activities had a uniform influence for both boys and girls.

While no statistical tests of significance were specifically applied to differing means between sub groups, there are several numerical differences which warrant further examination. There is a tendency, for example, for ten-ten-unlimited scale score means to be higher than either the Civics or Cluster means (see Table II). While no statistical significance can be attached to this, it is noteworthy that the Civics approach fared no better than the ten-ten-unlimited approach. This numerical tendency runs against the expectation expressed by the staff that the students who received the Civics treatment would out perform the other two treatment groups. Again, however, these differences were so small that they could not be attributed to the respective treatments per se.

Interview Data

Interviews were conducted with the building principal, staff members, students, and teachers. While the principal's comments were somewhat guarded, one did sense a supportive and responsive character. When pressed for evidence of a commitment to career education in the high school, he indicated that he was open to suggestions or staff recommendations regarding modifications in the curricular structure to accommodate career education activity. The interviews with teachers were limited to a "catch-as-one-can" basis. Therefore the following comments must be filtered through this limitation. Teachers generally appeared to be confused with respect to the overall scope and purpose of the career education program. It seems clear that more orientation work should have been done with the teaching faculty. Several teachers appeared uncooperative, however - these were notable exceptions. The leader of the construction cluster, for example, was enthusiastic and supportive of the program. He, as well as the other cluster leaders, appeared to need closer supervision and direction so that their activities are integrated into the total program. It should be noted at this point that the contribution of the business and communication cluster to the overall program was minimal. While the communication cluster engaged in a number of significant activities, they did not appear to be tied together in a meaningful whole. In short, much of the energy in the clusters was dissipated in scattered and often unrelated activities - largely as a result of poor pre-planning or a lack of a systematic and coordinated effort on the part of all staff members.

Students were extremely cooperative in discussing their participation in the career education program, and responded in what was perceived by the investigators as a most serious manner. They verified the staff's early concern with the Resource Center - stating that it was "out of it", and "isolated". They were, of course, referring to the initial location of the center in the shop area of the basement. Students also indicated that they often felt that classroom teachers would subtly penalize them when they would leave a class and go to group meetings. The validity of these comments could not be ascertained. However, if this represents a widespread student perception - the students' behavior, both in the classroom as well as in the career meetings, will be a function of this perception. Again, this data serves to highlight the need for more extensive faculty orientation.

Students generally reacted negatively to the small group meetings which were a part of the ten-ten-unlimited treatment. They reported feeling uncomfortable discussing personal matters in a group where the members did not know each other or have pre-established relationship. This was not a problem in the Civics treatment since students were naturally grouped by class and had classmate relationships. Students were also negative on the slide-film presentations, but positive on guest speakers and field visits. A rather interesting and perceptive student observation was the expressed need for more assistance in clarifying "work values". Here they were raising such questions as, "Do you work just to earn money?" "Is it okay if I want to be a carpenter?" Along this same line, students were calling for less informational activity and more discussion of how to deal with parents who held specific vocational expectations for them. In summary, students expressed positive feelings about their involvement in the career education program and believed that it should be made a required part of the high school program.

4. Conclusions and Recommendations

The Norwalk Career Education Project has achieved its basic goals. The specific nature of this achievement can best be reported by looking at the orientation, exploration, development themes as they were experienced at the three school levels.

At the elementary and middle school levels, the experience of this year (and the appropriate evaluation), has enabled the career education staff to select several comprehensive career education goals appropriate to Norwalk school children. Next year the activities which promote the attainment of the objectives will be efficiently "packaged" and available to all the elementary and middle schools in the district. A more detailed discussion of the 1973-74 program format will be discussed in the recommendations section.

The community enthusiastically supported the career education effort. Students, parents, teachers, administrators, and the community press endorsed the concept of career education as an important aspect of a child's education.

The lack of clear organization usually present in a new program, expecially one that is superimposed on the existing programs in a school, was increasingly rectified as the year progressed. It appears that next year's efforts will gain in effect given the present familiarity with the program concept and content on the part of the teachers and staff.

The career development program at the high school level was successful in the sense that students attained a higher level of vocational maturity as measured by the C.D.I. than they would have had there been no program. The variety of treatment activities had an impact on students. While this higher level of student functioning with respect to vocational maturity was statistically significant, it was not dramatic. It must be noted, however, that the experimental treatments were of a limited time duration averaging about six weeks. An intervention over this relatively brief time span could hardly be expected to produce extensive, long-range, dramatic changes in one's level of vocational maturity.

It must also be concluded that the three major intervention strategies employed (Ten-Ten-Unlimited, Civics, Cluster) were, in general, equally effective. Though, one is cautioned about attaching any particular significance to the Cluster treatment since the number of subjects was so small. In short, while there were overall differences in C.D.I. performance between students who participated in the career education program and those who did not, it cannot be said that any specific intervention was more effective than another. It must also be concluded that the various treatment activities were equally effective with both boys and girls.

In global summary, there is clearly a need for special career development activity at the high school level. There appears to be no one best answer or intervention strategy to meet this need. The 1972-73 school year must be viewed as one of trial-and-error. The staff struggled for effective ways of meeting the challenge of career education. Some mistakes were made, but on balance the staff learned more about meeting the special needs of students in the area of career development. It can be fully expected that the staff will build on this learning experience as they embark on the program for the 1973-74 school year. The following recommendations will serve as guidelines to facilitate this future effort.

Recommendations:

1. It is recommended that the elementary career orientation program refined from the research project be repackaged and redistributed to all the elementary schools in the district. However, the Career Education Specialist would function as a consultant, going into classrooms and initiating projects and then withdrawing, turning the responsibility for completing the projects over to classroom teachers. Since the goals and objectives have been established and measured, the value of the projects can be inferred.

2. We recommend that the program offered by the middle school Career Guidance Specialist be maintained much the same as it was in the project — a different level of activities being experienced by each grade level. However, we suggest that the two-week (ten unit) interval be expanded so that each unit be dealt with over the course of a month in a ten-month school year.

   Two middle school Guidance Specialists would be retained to offer the program (on three levels, but now with monthly themes drawn from the ten-unit program of the research project) to all middle school youngsters in Norwalk (5 middle schools). It is further recommended that Career Resource Centers -- equipped, stocked, maintained, and staffed by student committees -- be set up in each middle school. These career centers would serve as "home base" for the Career Guidance Specialist when he or she was in a particular school and not in class with students, where he or she could counsel individual youngsters or offer follow up to the monthly unit activities.

3. We recommend that a series of exploratory experience (hands-on, simulating work) be developed, representing each of the 15 clusters. Those clusters and activities that most closely relate to each other would then be grouped into a "laboratory" of experiences that could be transported to each of the middle schools where students at different grade levels would "explore" different activities. The first of these "laboratories" would be the Trade and Industry lab, consisting of hands-on, simulated work experiences in the clusters of Manufacturing, Transportation, Construction, and, possibly, Agri-Business and Environmental Control. This laboratory of experiences would then be taken from school to school by the middle school Career Exploration Specialist who would expose unified arts* teachers to the techniques of creating such experiences for youngsters, would perform demonstration lessons, simulating different

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* Unified arts is a combination of industrial arts, home arts, and art classes.

work experiences, and would then move to another middle school to do likewise with the unified arts staff of the school and their students.

4. We recommend that videotapes be developed state-wide with the State Department of Education assuming the cost of production and the responsibility for distribution.

5. We recommend the use of the SDS Form E with 7th and/or 8th graders as a provocative device used to stimulate individual career exploration on the part of the students. Using "A U.S.O.E. Occupational Cluster Classification of Jobs Found in Holland's Occupation Finder", students are further able to see how the many jobs they are directed to by the Form E of the SDS can be classified by clusters. Students can then choose for more intensive exploration, those clusters into which fall the majority of their favorite Form E-directed occupations.

6. It is recommended that another summer workshop be held -- this one involving elementary and middle school teachers. Each elementary school principal (18 in all) would be asked to select two "key" people from his staff - to act as resource people within the schools. Likewise, each middle school principal (5 in all) would be asked to select a "key" person from each of the major subject disciplines — also as resource people.

7. Career education ought to be viewed as an essential aspect of every student's high school educational program.

8. It is recommended that career education be infused into the on-going curriculum of the high school. At the ninth grade level the Civics course is an appropriate point of entry. Moreover, it is suggested that consideration be given to the longitudinal aspects of career development in grades eleven through twelve.

9. The student surveys and follow-up activities ought to be conducted by the regular counseling staff of the Guidance Department with appropriate feedback to the career education staff.

10. It is recommended that the Career Materials Resource Center continue to be located in a place near the mainstream of regular student activity.

11. It is recommended that the film series be continued, but that students not be excused from regular classes - but rather attend them during their free time or study hall period.

12. The staff is encouraged to continue and to expand on the utilization and involvement of community resources. Representatives from various occupations should be invited into the school, and more students should be involved in local career field visits.

13. The emphasis in cluster activity should be broadened beyond skill development and focus more sharply on the development of career opportunities, information resources, and attitudinal competencies related to the particular cluster.

14. The career education staff must assume more responsibility for the direction and supervision of cluster leaders. All cluster leaders should meet regularly with the career education staff.

15. It is imperative that a comprehensive orientation be jointly planned and executed by the administration and the career education staff - for the total faculty.

16. Regardless of the specific nature of the career education program, a shift in emphasis from cognitive to attitudinal is urged. Students will be unable to act on their information unless the personal/social path to career development is clear.

17. It is recommended that the regular guidance staff be brought into the mainstream of career education so that their individual and small group activity might complement the efforts of the career education staff.

18. It is recommended that a full time coordinator of career education be employed at the high school level - with the authority and administrative support to effectively implement the career education program. Moreover, it is imperative that career education in the Norwalk Public Schools be conceived and implemented on a K - 12 basis with a district-wide director responsible for the integration and overall execution of the program.

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GLOSSARY

1. A career cluster is that area of preoccupation in which one earns a living.

2. A vocation is a section of the cluster in which the student specializes.

3. Career awareness is geared to early elementary students to make them sensitive to who produces goods and those that service people.

4. Career orientation lets students identify fundamental questions of who works here and what they accomplish.

5. Career exploration, Junior High - a "hands-on" experience of exploring a limited number of careers in the world of work.

6. Career training, 10, 11, 12 Grades - a study of the vocations and skill development with the related knowledge in vocations and occupations.

7. Career entry - actual job placement, supervised work study, apprenticeship.

8. Career advancement - Adult and Continuing Education, post secondary educational training.

APPENDIX A

ELEMENTARY
CAREER
ORIENTATION

Prepared
by
Dr. James Medved
Mrs. Jo Merle Waldron

CAREER ORIENTATION--ELEMENTARY GRADES

4th Grade

Goals	Behavrioral Objectives	Activities
I. Students will understand that their town has a diverse population.	A-I. Given the descriptions of 4 typical communities, the student will choose the community most closely resembling their town.	1-A-I. Students will view a slide presentation depicting the differences to be found in their city in: a. race b. religion c. economic level d. education & cultural activities e. types of job.
II. Students will understand that the people of their town are workers in many different jobs--jobs that hold a relationship to the economic level and educational background of the workers themselves.	A-II. Given the descriptions of 3 working communities (i.e., descriptions of where and how the people of the community make a living), the student will successfully select the working community most closely resembling his own.	1-A-III. (Same as I-A-1).

Goals	Behavioral Objectives	Activities
	B-II. Given statements of nature shown below (each statement being a supposition about the relationship between the kind of work a man performs and his economic level and educational background), the student will make the proper response. FALSE - You can tell how wealthy a man is by the kind of job he performs. TRUE - The amount of education a man has can affect the kind of job he holds.	1-B-II. Students will discuss if the economic conditions of workers hold a relationship to the kinds of jobs they hold. 2-B-II. Students will discuss how education and/or training can affect a man's work.
III. Students will understand how the geography of a community affects the kinds of jobs found there.	A-III. Given a map of the continental U.S., the student will be able to find his home town (i.e., Norwalk, Ct.) and measure the distance to the nearest large city (New York City).	1-A-III. Students will discuss the location of their town in relation to the nearest large city.

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		2-A-III. Students will discuss the location of their town in relation to the rest of the state and the U.S. as a whole.
		3-A-III. Students will measure the distance between their town and the nearest large city and between their town and other places in their state and the U.S.
	B-III. Having discussed only 5 geographical factors that could affect the kinds of jobs found in a community (i.e. location (topography), climate transportation, natural resources, and nearby areas providing markets or competition). the student will underline a factor not	1-B-III. Students will collect pictures and make collages depicting or illustrating examples different kinds of: a. location (topography) b. climate

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	discussed when given a list of 6 possible choices.	c.transportation d.natural resources
		2-B-III.Students will role-play to illustrate how nearby areas can provide markets or competition. 1.one store--one market 2.2nd store,lower prices--competition 3.crowd of people moves in--new and growing market 4.3rd store to handle growing market
	C-III.Given the descriptions of a number of working communities (the jobs in each	1-C-III.Students will fill an outline map of the U.S. with

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	community holding a relationship to a different one of the factors listed in B-III), the student will indicate on a list of occupations which of those occupations might be found in each community.	pictures representing different types of location (topography), climate, transportation, and natural resources.
		2-C-III. Students will discuss how each of the factors listed in B-III can hold a relationship to the jobs found in an area.
	D-III. Given the list of factors in B-III. the student will circle those factors that affect jobs in their town.	1-D-III. Students will discuss which of the factors listed in B-III affect jobs in their town.
IV. Students will understand that jobs can be grouped into families. or "clusters."	A-IV. Given 6 groups of 3 jobs each (each group representing one of the 6 ways jobs can form a family), the student will choose the job	1-A-IV. Students will arrange themselves in "families" or "clusters" according to the color or

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	in each group that differs from the others.	type of various articles of clothing worn. Ex.Form a (All red shirts Cluster(" blue " Form a (All brown Cluster(skirts&pants (All brown skirts&pants Form a (All shoes Cluster(" sneakers
		2-A-IV.Relate each of the 6 points to specific jobs, then relate each to familiar aspects concerning the students themselves (in the following format):
	a.because they are in the same industry. b.because they demand similar training.	(a.everyone in one (class. verbal (b.everyone in same (grade level.

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	c. because they involve similar activities (workers do the same kinds of work). d. because they satisfy similar interests (workers like the same things.) e. because they are found in the same location, or place. f. because they require the same skills (workers are good at doing the same things).	(c. divide students into 3 groups: people, things, data. activity (d. sub-divide each of above groupings into interest areas. e. refer to activities covered under 1-B-III. f. discuss individual skills found within the class.
		3-A-IV. Students will play part of the "Interests Continuum" game devised by Dr. Harold Munson of the University of Rochester--which requires the student to determine if he is interested in

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		working with people, data or things.*
V. Students will understand that every job can belong to or is representative of one of 15 clusters of occupations.	A-V. After having been oriented to a cluster, the student will be able to choose, from a list of 10 occupations the 5 occupations belonging to that cluster.	(1-15)A-V. Students will be oriented to each of the 15 clusters through the activities listed at the end of this Appendix.
	B-V. Given a list of the 15 clusters and a list of 15 occupations the student will match each of the occupations with the cluster of which it is most representative.	
VI. Students will understand that certain clusters of work can be found and/or are needed in almost every community.	A-VI. Given a list of 15 clusters, the student will choose those clusters of occupations that can be found and/or are needed in almost every community--i.e., public services, personal serv-	1-A-VI. Students will write the Chamber of Commerce of their own and nearby communities for information about the communities.

*Note-The descriptions of the game mentioned above will be included in Attachment I, to the Appendix.

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	ices, construction, transportation, marketing and distribution, health services, consumer and homemaking related, and hospitality and recreation.	2-A-VI. Having received the information (1-A-VI) the students will try to ascertain what services and types of occupations are common to all the communities.
	B-VI. The student will give evidence of why those clusters of occupations identified in A-VI are needed by the people in their community.	1-B-VI. Students will discuss the need for those clusters of occupations found in almost all communities to the people of their community.
VII. Students will understand certain "clusters" can be found in a community particularly because of its population and/or geography.	A-VII. Having determined which clusters can be found or needed in any community, the student will identify any other clusters of occupations to be found in his community.	1-A-VII. Given a list of the 15 clusters, students will list those clusters of occupations that can be found in almost every community.

4th Grade(Cont.)

Goals	Behavioral Objectives	Activities
		2-A-VII. Students will next identify from the clusters remaining (after 1-A-VII) those other clusters found in their community.
	B-VII. Given a list of towns in their state (or nearby or adjoining states), the student will select 3 towns having both: (1) a population and/or geography similar to their town's, AND (2) the same clusters of work.	1-B-VII. Students will practice working with an encyclopedia, atlas, and road map.
		2-B-VII. Using an encyclopedia, atlas, or road map, students will identify a number of towns in their state (or nearby or adjoining states) having a population and/or geography similar to their town's.

4th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		3-B-VII. Students will discover what kinds of work (i.e., clusters) can be found in those towns identified during Activity 2-B-VII.
	C-VII. Given a list of the 15 clusters and descriptions of a number of different kinds of towns or locations, the student will underline the clusters not found in his town and match them with the kind of town or location in which they could be expected to be found.	1-C-VII. Students will identify the clusters not found in their town. 2-C-VII. Students will try to describe or find descriptions of towns or locations in which these clusters could be found.

CAREER ORIENTATION--ELEMENTARY GRADES

5th Grade

Goals	Behavioral Objectives	Activities
I. Students will understand that the world of work in America has a history of change.	A-I. Given a list of 10 occupations (5 of which were performed in America long ago, and 5 of which are performed in their town presently), the student will check those occupations performed in America long ago.	1-A-I. Students will view and discuss the SVE filmstrip, "Sturbridge Village and Mystic Seaport."
		2-A-I. Students will view and discuss the Guidance Associates filmstrip, "Jobs of the 70's."
		3-A-I. Students will view and discuss the Connecticut Public Television (CPTV) video tape, "Earning a Living in the Past."
	B-I. Given a list of 6 possible reasons for change in the world of work in America, the student will check the	1-B-I. Students will view and discuss the CPTV video tape, "Inventions, Ideas, and

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	3 reasons discussed in class: the use of new and different kinds of power, the growth of automation, and the use of the division of labor and specialization in different types of work.	Ingenuity, Parts I and II."
		2-B-I. Students will collect a series of pictures depicting different kinds of power.
		3-B-I. Students will role-play in a skit about automation.
		a. one person carries books from factory to store--count numbers of books carried and sold, and profits and wages accrued.
		b. a truck now carries books from factory to store--

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		count numbers of books now carried and sold, profits and difference in time of transportation.
		4-B-I. Students will work on an assembly line to mass-produce pencil holders. Each student will specialize in one or more "jobs" on the assembly line.
II. Students will understand that certain characteristics (i.e., abilities education. physical skills, and working conditions) make some jobs similar and other jobs different.	A-II. Given a list of 5 possible characteristics that make jobs similar or different, the student will underline the characteristic that was not discussed in class.	1-A-II. Students will view and discuss the 2nd half of the SVE filmstrip, "What Is a Job"--that make jobs similar or different.
		2-A-II. Students will be asked to list any of their special

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		abilities and favorite subjects.
		3-A-II. Drawing from a list of physical skills, students will depict (in cartoon form) any special physical abilities they may possess. Those possessing similar physical abilities will work together.
		4-A-II. Drawing from a list of different working conditions, students will choose the conditions under which they would prefer to work.
	B-II. Given a number of jobs, the student will select for each of the 4 characteristics indicated in Goal II jobs	

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	that are the same or similar because of that characteristic.	
	C-II. Given 4 sets of 3 job descriptions, the student will choose the job in each set that differs from the others in: a. abilities b. education c. physical skills d. working conditions	
III. Students will understand that jobs can be grouped into families or "clusters."	A-III. Given 6 groups of 3 jobs each (each group representing one of the 6 ways jobs can form a family), the student will choose the job in each group that differs from the others.	1-A-III. Students will arrange cardboard cutouts of various shapes, colors, and number by "families," or "clusters."
		2-A-III. Students will view and discuss the filmstrip "What Are Job Families?" (SVE--

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		that gives 6 ways that jobs form a family, or "cluster": a.because they are in the same industry. b.because they demand similar training. c.because they involve similar activities (workers do the same kinds of work). d.because they satisfy similar interests (workers like the same things). e.because they are found in the same location,or place. f.because they require the same skills (workers are good at doing the same things).

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		3-A-III. Students will play part of the "Interests Continuum" game devised by Dr. Harold Munson of the University of Rochester--which requires the student to determine if he is interested in working with people, data, or things.*
IV. Students will understand that every job can belong to, or is representative of, one of 15 clusters of occupations.	A-IV. After having been oriented to a cluster, the student will be able to choose, from a list of 10 occupations belonging to that cluster.	(1-15)A-IV. Students will be oriented to each of the 15 clusters through the activities listed on later pages.
	B-IV. Given a list of the 15 clusters and a list of 15 occupations the student will match each of the occupations with the cluster of which it is most representative.	

*Note - The descriptions of the game mentioned here will be included in Attachment I, to the Appendix.

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
V. Students will understand that where one chooses to live and the job or career one chooses to perform may hold a relationship to each other.	A-V. Given a map of the U.S., the student will: a. indicate an area or location whose characteristics would fit the description of the "Place Where He Would Most Like to Live."	1-A-V. Using a chart listing various geographical characteristics, the student will select certain of these characteristics to create a composite picture of the "Place Where He Would Most Like to Live."
	b. AND identify the principle industries of the area or location thus indicated--as well as 5 occupations one could expect to find being performed in that area or location.	2-A-V. Students will use an atlas or encyclopedia to match their composite pictures of the "Place . . ." with areas or locations in the U.S. resembling their composites.
		3-A-V. Using an atlas or encyclopedia, students will find the principle industries

Goals	Behavioral Objectives	Activities
		of those U.S. areas or locations resembling their composites of the "Place..."
		4-A-V. Students will describe the "Places in Which They Would Most Like to Live" to the class in order to discover those who have interests in the same or similar areas or locations. Then the students will group accordingly. Then, students will read the Men at Work (E.M. Hale Publishers) books describing those areas in which they would most like to live. (The Men at Work series deals with different geographi-

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		cal areas of the U.S. and the principle industries and occupations to be found in those areas.)
		5-A-V. Students in each group formed during Activity 4-A-V will develop a role playing situation describing some of the occupations to be found in their area.
VI. Students will understand that certain clusters of work can be found wherever one chooses to live.	A-VI. Given a list of the 15 clusters the student will identify those clusters of work that may be found wherever one chooses to live.	1-A-VI. Given a list of the 15 clusters, students will discuss which clusters of work can be found wherever one chooses to live.
		2-A-VI. Using the Men at Work books as references, students will find and dis-

5th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		cuss those occupations or kinds of work mentioned in the Men at Work books of all regions.

THE 15 CLUSTERS AND ACTIVITIES PROVIDING ORIENTATION TO EACH CLUSTER

Cluster		Activity
1. Business & Office	a.-1.	Students will view and discuss the Wonderful World of Work (WOW) filmstrip #200, "Office Occupations," produced by Denoyer-Geppert.
	b.-1.	Students will read the King comic book about Popeye and Business & Office Occupations.
	c.-1.	Students will organize a "Footstool Business." (i.) show sample (ii.) take orders (iii.) process orders (iv.) order materials and supplies (v.) place orders with production department (vi.) assign jobs on the production line
	d.-1.	Simulate job interviewing (with interviewing for actual jobs, to be filled during the Manufacturing cluster). Set up several offices containing president, personnel manager secretary/receptionist. Remainder of class becomes applicants and are interviewed individually. Job placement decisions carried out by office workers.

Cluster	Activity	
2. Manufacturing	a.-2.	Students will view and discuss the WOW filmstrip #211, "Technical & Industrial."
	b.-2.	Students will view the CPTV video tape, "Building Things in Connecticut."
	c.-2.	Students will read the King comic book about Popeye and Manufacturing Occupations.
	d.-2.	Students will mass produce footstools for their "Footstool Business."
	e.-2.	Paper Holders
	f.-2.	Pencil Holders
	g.-2.	Paperweights
	h.-2.	Popcorn
	i.-2.	Crystal Radios
	j.-2.	Wristbands &/or Chokers
	k.-2.	Invent a machine for an imaginary function (using miscellaneous materials)
3. Transportation	a.-3.	Students will view and discuss the Eyegate filmstrip, "Workers for the Public Welfare: Transportation and Transportation Workers."
	b.-3.	Students will read the King comic book about Popeye and Transportation occupations.
	c.-3.	Students will take a field trip to an airport in their state (i.e.

Cluster		Activity
		Bradley International--Connecticut).
	d.-3.	Upon returning from their field trip, students will draw a mural depicting "Jobs at the Airport."
4. Communications & Media	a.-4.	Students will view and discuss the WOW filmstrip #206 "The Telephone Workers."
	b.-4.	Students will read the King comic book about Popeye and Communications & Media Occupations.
	c.-4.	Students will produce a television "news" program using actual transmitting equipment. Students will also produce a weekly Current Events news program.
	d.-4.	Students will visit the local newspaper and radio station.
	e.-4.	Students will simulate a printing process using linoleum blocks.
	f.-4.	Students will make a movie with a home movie camera/projector and a sound track on tape.
	g.-4.	Students will produce a light show with overhead projectors and slide projectors.

Cluster	Activity
	h.-4. Students will have video tape equipment demonstrated, be filmed and watch the replay.
5. Fine Arts & Humanities	a.-5. Students will view and discuss the CPTV video tape. "Fine Arts in Connecticut."
	b.-5. Students will read the King comic book about Popeye and Careers in Fine Arts & Humanities.
	c.-5. Students will visit a local art gallery.
	d.-5. Students will be visited by the Dean of the School of Fine Arts from a local university and someone employed in the humanities.
	e.-5. Students will write and produce a short play and design sets.
	f.-5. Students will present a talent show including vocal and instrumental music, dance numbers and a light show using A.V.A. equipment.
6. Hospitality & Recreation	a.-6. Students will view and discuss the Eyegate filmstrip "Workers for the Public Welfare: Recreation, Park, and Playground Workers."
	b.-6. Students will view the CPTV video tape "Recreation in Connecticut."

Cluster	Activity
	c.-6. Students will read the Popeye comic book about Careers in Hospitality & Recreation.
	d.-6. Students will have a visitor from a travel agency.
	e.-6. Students will be paid a visit by the manager of a local motel or hotel.
	f.-6. Students will have as speakers: Boy/Girl Scout Leaders, 4-H Workers, Boy/Girl Club Directors
7. Personal Services	a.-7. Students will view and discuss the WOW filmstrip #210, "Personal Services," #204, "The Electrical Workers," #205, "The Gas and Oil Workers."
	b.-7. Students will view and discuss the CPTV video tape, "Providing Services in Connecticut.
	c.-7. Students will set up a barber shop and beauty parlor, in which they will: a. set or style hair b. give manicures c. collect money d. make appointments
	d.-7. Students will set up a health spa in which they will:

Cluster	Activity
	a. work as consultants, and prescribe and supervise an exercise program for each customer. b. make appointments c. collect money
	e.-7. The remainder of class will be customers (play money) and go to the shops of their choice. When they run out of money they should look for a job. When shop workers make enough money, they can become customers--IF their position can be filled.
8. Public Services	a.-8. Students will view and discuss the Eyegate filmstrips, "Workers for the Public Welfare: a. Police and Police Protection b. Fire and Fire Fighters c. The Post Office and Postal Workers d. Education and the Teacher e. The Library and the Librarian f. Social Service and the Social Worker."
	b.-8. Students will read the King comic book about Popeye and Public Services.
	c.-8. Students will be paid visits by various public servants.

Cluster	Activity
9. Health Services	a.-9. Students will view and discuss the WOW filmstrip #213, "Health Services."
	b.-9. Students will view and discuss the CPTV video tape, "Keeping Well in Connecticut."
	c.-9. Students will read the King comic book about Popeye and Health Careers.
	d.-9. Students will be paid a visit from the school nurse and school dietician and a medical technologist.
10. Environmental Control	a.-10. Students will view and discuss the Eyegate filmstrip, "Workers for the Public Welfare: Sanitation and the Sanitation Workers."
	b.-10. Students will read the King comic book about Popeye and Environmental Control.
	c.-10. Students will be paid a visit from a worker for the Board of Health who will speak about jobs in pollution control.
	d.-10. Students will take a walk in the neighborhood around the school with the science teacher.
	e.-10. Students will have a clean-up campaign; collect old newspapers, bottles, cans and bring to recycl-

Cluster	Activity
	ing center. (split profits)
	f.-10. Collect junk; repair and clean it--hold sale in school.
11. Home Economics and Consumer Education	a.-11. Students will view and discuss the WOW filmstrip #202, "Just What Do Mothers Do?"
	b.-11. Students will view and discuss the CPTV video tape, "Housekeeping in Connecticut."
	c.-11. Students will view and discuss the WOW filmstrip #212, "Home Economics."
	d.-11. Students will read the King comic book about Popeye and Consumer and Homemaking Related Careers.
	e.-11. Students will visit nearby high school or middle school home economics class.
	f.-11. Students will invite the Supervisor of Food Services for Schools.
12. Marketing & Distribution	a.-12. Students will view and discuss the WOW filmstrip #207, "Distributive Occupations."
	b.-12. Students will view and discuss the CPTV video tapes, "Getting Goods to People" and "Making Things."

Cluster	Activity
	c.-12. Students will read the King comic book about Popeye and Careers in Marketing & Distribution.
	d.-12. Students will hold a mock sale of items manufactured earlier, to a lower grade (using play money). (Make advertising posters)
	e.-12. Students will hold real sale possibly using recycled "junk," from Environmental cluster.
13. Construction	a.-13. Students will view the SVE filmstrip series. "How We Get Our Homes."
	b.-13. Students will read the King comic book about Popeye and Construction Jobs.
	c.-13. Students will "build" a cardboard house.
14. Agri-Business & Natural Resources	a.-14. Students will view and discuss the WOW filmstrip #209. "Natural Resources."
	b.-14. Students will view and discuss the CPTV video tapes, "Connecticut Resources" and "Some People Earn Their Livings by Growing Things."
	c.-14. Students will read the King comic book about Popeye and Agri-Business.
	d.-14. Students will plant flowers and vegetables

Cluster	Activity
	(radishes and lettuce are fast growing) around the school.
15. Marine Science	a.-15. Students will read the King comic book about Popeye and Marine Science Careers.
	b.-15. Students will view and discuss several films produced and distributed by the National Oceanic & Atmospheric Administration, National Marine Fisheries Service, U.S. Department of Commerce: (i.) "The Biologist & the Boy" (ii.) "Sockeye Odyssey" (iii.) "Sponge-Treasure from the Sea" (iv.) "FLARE (Florida Aquanaut Research Expedition)"

APPENDIX B

MIDDLE SCHOOL
CAREER
GUIDANCE
AND
EXPLORATION

Prepared
by
Dr. James Medved
Mrs. Judith Petropulos

MIDDLE SCHOOL CAREER GUIDANCE

6th Grade

Goals	Behavioral Objectives	Activities
I. Students will understand that man both values and needs work.	A-I. Given a list containing 6 possible reasons why man works the student will underline the reason that does not belong in the list.	1-A-I. Students will view and discuss the SVE filmstrip, "The World of Work."
		2-A-I. The instructor will show and discuss with students the use of the Dictionary of Occupational Titles & Occupational Outlook Handbook.
		3-A-I. Students will discuss the reasons why man works.
		4-A-I. Students will view a filmstrip created by the Norwalk Career Education staff, entitled "Why Man Works."

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
II. Students will understand that every job is unique having characteristics that make it similar or different from other jobs.	A-II. Given a list of 6 possible factors that cause every job to be unique the student will underline the factor that does not belong in the list.	1-A-II. Students will view and discuss the 1st part of the SVE filmstrip, "What Is a Job," that shows 5 factors that cause every job to be unique. Each job has its own: a. name b. address c. importance d. personality e. characteristics
	B-II. Given a list of 5 possible characteristics that make jobs similar or different the student will underline the characteristic that does not belong in the list.	1-B-II. Students will view and discuss the 2nd part of the SVE filmstrip, "What Is a Job," that shows 4 characteristics that make jobs similar or different:

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		a. physical skills b. working conditions c. abilities d. education
		2-B-II. To illustrate the different kinds of interests and abilities that do exist, the instructor will summarize and discuss with students the contents of a pamphlet found in the SRA WORK kit, entitled "Your Abilities," SRA Junior Guidance Series.
		3-B-II. To allow students to illustrate for themselves how people's interests and abilities can affect the jobs one selects, students will play the Interests Continuum game devised

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		by Dr. Harold Munson, University of Rochester. The game can be played with the game board or the game sheet listed on later pages in this Appendix. The students will play the game, using and defining the following words: people, data, things AND administrative, social, technological.
		4-B-II. Students will read the SRA WORK briefs about some 400 jobs, arranged by the people, data, and things classifcation.
		5-B-II. Using a questionnaire sheet, "What Is a

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		Job," found in the student workbooks contained in the SRA WORK kit, students will interview adults (i.e., fathers, mothers, brothers, sisters, etc.) about their jobs.
	C-II. Given a number of jobs, the student will select for each of the 4 characteristics indicated (listed in Activity 1-B-II) jobs that are the same or similar because of that characteristic.	1-C&D-II. Students will view and discuss the Guidance Associates filmstrips "Liking Your Job & Your Life."
	D-II. Given 4 sets of 3 jobs each the student will choose the job in each set that differs from the others in: (1) abilities (2) education (3) physical skills (4) working conditions	2-C&D-II. Students will view and discuss the Guidance Associates filmstrip series the "Career Discovery Series." 3-C&D-II. Students will compare and contrast the jobs described in each of the filmstrips mentioned above in order to see how the

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		abilities, physical skills, education or working conditions of those jobs are similar or different.
III. Students will understand (1) that workers must be prepared to enter the world of work in order to succeed, and (2) that school is important to their career preparation.	A-III. Given examples of 4 workers who were not prepared for the world of work the student will give evidence of how each worker was ill-prepared.	1-A-III. Students will view and discuss the Guidance Associates filmstrip, "Four Who Quit, Parts I & II."
		2-A-III. The instructor will discuss the courses and requirements that must be completed and fulfilled in order to matriculate or graduate from middle school and/or high school.
		3-A-III. The instructor will compare the curricula of the comprehensive high school vs. that of the vocational-technical high school,

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		AND, will compare and contrast post-high school technical schools, community colleges, junior colleges, and 4 year universities and degree colleges.
		4-A-III. The instructor will talk about different kinds of degrees.
	B-III. The student will be able to identify at least 5 occupations that hold a relationship to or would require a proficiency in his best subject in school.	1-B-III. Students will view and discuss the SVE filmstrip, entitled "What Good is School?"
		2-B-III. The instructor will discuss with students the importance of study habits, how to study, and grading procedures.
		3-B-III. Students will play the Interests Continuum game again, using the

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		remaining words (such as, mathematical, literary, scientific, mechanical, language, performing arts, etc.).
		4-B-III. Students will take home and complete a sheet that asks them to indicate their best subject in school and jobs related to it.
IV. Students will examine their life goal preferences and relate them to their career interests.	A-IV. The student will depict himself performing an occupation that would require the same skill or skills involved in doing what he best likes to do.	1-A-IV. Students will draw pictures of themselves in the future, entitled "My Future." The pictures should depict themselves working in occupations that would hold relationships to the skills involved in doing those things they best like to do.

6th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	B-IV. Given a series of choices, the student will compare life goals by defining their meanings and choosing and rank ordering those that have the greatest or least appeal to him.	1-B-IV. Students will define a list of life goals terms (such as, power, security, prestige, etc.) 2-B-IV. Students will play the Life Goals game, devised by Dr. Harold Munson of the University of Rochester, using both the game board and/or the accompanying game sheet.
	C-IV. The student will list 5 occupations that might best lead to the achievement of the life goals chosen in playing the Life Goals game (2-B-IV).	1-C-IV. Students will list, at the bottom of the Life Goals game sheet, 5 occupations that might best lead to the achievement of the life goals chosen in playing the Life Goals game.

7th Grade

Goals	Behavioral Objectives	Activities
I. Students will understand that career planning is necessary.	A-I. Given a list of 5 possible reasons why career planning is necessary, the student will underline the reason that does not belong in the list. (Career planning is necessary so one can:	1-A-I. Students will view and discuss the Guidance Associates filmstrip, entitled "Preparing for the World of Work, Part I," that implies the reasons listed following Objective A-I.
	1. choose work he will like to perform--to satisfy his interests. 2. choose work he will be able to perform--in the scope of his abilities.	2-A-I. The instructor will show and discuss with students the use of the Dictionary of Occupational Titles & Occupational Outlook Handbook.
	3. properly train for his future employment.	3-A-I. Students will view and discuss the SVE filmstrip, entitled "Requirements in the World of Jobs."
	4. be sure that the kind of work one would like to perform still exists when one gets out of school.)	4-A-I. Students will read and discuss the edited copy of a

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		General Electric pamphlet that deals with the need for career planning.
II. Students will understand that work in America has a nature of change.	A-II. Given a list of 10 occupations the student will choose: 1. the 5 occupations that were performed in America long ago, OR 2. the 5 occupations that are performed in America presently.	1-A-II. Students will view and discuss the SVE filmstrip, entitled "Sturbridge Village and Mystic Seaport" -- depicting some jobs of the past. 2-A-II. Students will read and discuss 2 sheets: (a.) "Work in Norwalk Has a History of Change" (b.) "Jobs Showing a Decline. . ." 3-A-II. Students will view and discuss the Guidance Associates filmstrip, entitled

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		"Preparing for Jobs of the 70's, Parts I and II.
		4-A-II. Students will read and discuss a two-page fact sheet that lists jobs that show a positive work outlook.
		5-A-II. Students will view and discuss the Eyegate filmstrip, entitled "What is Your Future in the Changing World of Work?"
		6-A-II. Students will read and discuss a sheet that states some facts about the future of work for present middle school students.
	B-II. Given a list of 6 possible factors that might have changed and will continue	1-B-II. Students will identify and discuss 3 factors that have changed the

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	to change the nature of work in America, the student will underline the 3 factors discussed in class: the uses of new and different forms of power, the increase of automation, and the rise of the division of labor and specialization of work.	nature of work in America from the past to the present, and will continue to change the nature of work from the present to the future
III. Students will understand that jobs can be grouped into one of 6 work environments, each environment attracting workers of different personalities.	A-III. Given a list of 6 personality classifications (Realistic, Intellectual, Artistic, Social, Enterprising, Conventional) and the description of 6 types of people, the student will match the proper classification with the type of person it represents.	1-A-III. Students will view and discuss the Guidance Associates filmstrip, entitled "Choosing Your Career, Part I," that deals with the career development theory proposed by Dr. John Holland, of the Johns Hopkins University.
	B-III. Given a list of occupations, the student will classify each of the occupations into one of 6 work	1-B-III. Students will view and discuss "Choosing Your Career, Part II."

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	environments (corresponding to the 6 personality classifications listed in Objective A-III).	2-B-III. Students will view and discuss the Guidance Associates filmstrip series, entitled "Career Discovery"--that depicts a number of occupations according to the Holland theoretical classifications.
IV. Students will understand that their interest and aptitudes will have an effect on their choices of future careers.	A-IV. Given a series of pair-comparisons (i.e., people vs. things, people vs. data data vs. things), the student will: 1. choose the variable with which he would most like to work, AND	1-A-IV. Students will play the Interests Continuum game devised by Dr. Harold Munson, of the University of Rochester. In playing the game, the student will use both the game board and the Interests

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	2. find examples of occupations in which work with that variable occurs.	Continuum game sheet.
		2-A-IV. Students will read the SRA WORK briefs on occupations, arranged according to the people, data, things classification.
	(For example, if the student finds he would most like to work with or for people, he would then find examples of jobs in which one works with or for people.)	3-A-IV. Students will read the "People and Choices" career folios published by Harcourt-Brace-Janovich--arranged by the instructor according to the people, data, things classification.
B-IV. The student will:		1-B-IV. Students will:
	1. develop a profile of his personality, based on his interests, aptitudes and self-estimates, AND	a. complete the Self-Directed Search (SDS) created by Dr. John Holland, AND

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	2. identify several occupations which attract people having a personality like his own.	b. find jobs corresponding to their SDS summary codes in Holland's Occupations Finder.
		2-B-IV. Students will fill out a mock job application that will require them to provide information about themselves, obtained from playing the Munson game and completing Holland's SDS.
	C-IV. Each student will identify the 3 clusters that contain the most jobs that correspond to their SDS summary code (Activity b-1-B-IV).	Having previously listed all the jobs that correspond to their SDS summary codes, students will identify the cluster to which each job so listed corresponds.

7th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		To do this, the students will use "A Cluster Classification of Jobs Listed in the Occupations Finder"--available from the Career Education office. Students will then determine which 3 clusters contain the most jobs.

8th Grade

Goals	Behavioral Objectives	Activities
I. Students will understand that man both values and needs work.	A-I. Given a list containing 6 possible reasons why man works, the student will understand the reason that does not belong in the list.	1-A-I. Students will view and discuss the Guidance Associates filmstrips, entitled "Why Work at All?"--that discusses 5 reasons why man works.
II. Students will understand that jobs have no gender.	A-II. Given a number of true and false statements about jobs, the student will make the choices that would indicate jobs have no gender.	1-A-II. Students will view and discuss the Guidance Associates filmstrip, entitled "Jobs and Gender."
III. Students will understand that workers must be prepared to enter the world of work in order to succeed AND that school is important to their career preparation.	A-III. Given examples of 4 workers who were not prepared for the world of work, the student will give evidence of how each worker was ill-prepared.	1-A-III. Students will view and discuss the Guidance Associates filmstrip, "Four Who Quit, Parts I & II." 2-A-III. The instructor will discuss courses and requirements that must be completed and fulfilled in order to matriculate or gradu-

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		ate from middle school and/or high school.
		3-A-III. The instructor will compare the curricula of the comprehensive high school vs. that of the vocational-technical high school, AND will compare and contrast the instructional programs of post-high school technical schools, apprenticeship programs, community colleges, junior colleges, and 4 year universities and degree colleges.
		4-A-III. The instructor will talk about different kinds of degrees.

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
IV. Students will explore different kinds of jobs associated with each of the 15 "clusters" of work.	A-IV. Given a list of the 15 clusters and a list of 15 occupations, the student will match each of the jobs to the cluster with which it is typically associated.	1-A-IV. The instructor will discuss the "cluster" classification system devised by the U.S. Office of Education.
	(optional)	2-A-IV. Students will view video tapes showing types of work or occupations associated with each cluster and working establishments (in Norwalk) in which occupations associated with certain clusters can be found.
		3-A-IV. Students will view the APGA film entitled, "Work--What's It All About"--that depicts jobs in 10 cluster areas.

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	B-IV. Given a list of the 15 clusters, the student will check (✓) those clusters of occupations that can be found in Norwalk and will cite an example of a Norwalk working establishment in which occupations associated with each of those clusters can be found.	
V. Students will understand that jobs can be grouped into one of 6 work environments each environment attracting workers of different personalities.	A-V. Given a list of 6 personality classifications (Realistic, Intellectual, Artistic, Social, Enterprising, Conventional) and the descriptions of 6 types of people, the student will match the proper classification with the type of person it represents.	2-A-V. Students will view and discuss the Guidance Associates filmstrip, entitled "Choosing Your Career, Part I," that deals with the career development theory proposed by Dr. John Holland, of the Johns Hopkins University.
	B-V. Given a list of occupations, the student will classify each of the occupations	1-B-V. Students will view and discuss "Choosing Your Career, Part II."

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	into one of 6 work environments (corresponding to the 6 personality classifications listed in Objective A-V).	2-B-V. Students will view and discuss the Guidance Associates filmstrip series, entitled "Career Discovery"--that depicts a number of occupations classified according to the Holland theoretical classifications.
VI. Students will understand that their interests and aptitudes will have an effect on their choices of future careers.	A-VI. Given a series of pair-comparisons (i.e., people vs. things people vs. data, data vs. things), the student will: 1. choose the variable with which he would most like to work, AND 2. find examples of occupations in which work with that variable occurs. (For example, if the student finds he would most like to work with or for	1-A-VI. Students will play the Interests Continuum game devised by Dr. Harold Munson, of the University of Rochester. In playing the game, the student will use both the game board and the Interests Continuum sheet. 2-A-VI. Students will read the SRA WORK briefs on occupations, arranged according to the people, data, things classification.

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
	people.)	3-A-VI. Students will read the "People and Choices" career folios published by Harcourt-Brace-Janovich arranged by the instructor according to the people, data, things classification.
	B-VI. The student will:	1-B-VI. Students will:
	1. develop a profile of his personality, based on his interests, aptitudes, and self-estimates, AND	a. complete the Self-Directed Search (SDS) created by Dr. John Holland, AND
	2. identify several occupations which attract people having a personality like his own.	b. find jobs corresponding to their SDS summary codes in Holland's Occupations Finder.
		2-B-VI. Students will fill out a mock job application that will re-

8th Grade (Cont.)

Goals	Behavioral Objectives	Activities
		quire them to provide information about themselves, obtained from playing the Munson game and completing Holland's SDS.
	C-VI. Each student will identify the 3 clusters that contain the most jobs that correspond to their SDS summary code (Activity b-1-B-VI).	1-C-VI. Having previously listed all the jobs that correspond to their SDS summary codes, students will identify the cluster to which each job so listed corresponds. To do this, the students will use "A Cluster Classification of Jobs Listed in the Occupations Finder"--available from the Career Education office. Students will then determine which 3 clusters contain the most jobs.

CAREER EXPLORATION - MIDDLE SCHOOL

Goals	Behavioral Objectives	Activities
I. Students will explore different kinds of work performed in each of the 15 clusters of occupations.	A-I. In a simulated work experience in which one or more clusters is represented, the student will choose and perform at least one "job."	1-A-I. Students will select and perform "jobs" in various simulated work experiences--each such experience simulating different kinds of work to be found in one or more of the 15 clusters.
	B-I. Having performed at least one "job" in a simulated work experience, the student will be able to describe the work performed in at least 3 other "jobs" associated with each cluster represented by the simulated work experience.	
	C-I. Having explored "work" in each of the 15 clusters, the student will choose and order (i.e. first, second, and third) the 3 clusters of greatest attraction to him.	

Why Worry About A CAREER?

How long before you'll be out of school and on your own? How many years before you'll be earning your own living?

It all depends, of course, on how much more education you're going to get. But it may be sooner than you think. So let's go on to another question:

Have you any idea what you'll be doing for a living?

Maybe you don't care; maybe you'd rather not be bothered about it now. But if you feel that way about it you could be wrong. For it might be a big help to you later, to think about it now, while you're in middle school.

Here's why: Whatever you decide you like to do best for a living, or whatever work you decide will pay you the kind of salary or wages you want, chances are you'll be able to get what you want easier if you start preparing for it now.

By and large, there are two kinds of job: (1) those that require a special training or skill, and (2) those that don't. People who work can be roughly divided, therefore, into two similar groups: (1) skilled workers and (2) unskilled workers.

Time was when most of the people who worked were unskilled workers. Those were the days when life was comparatively simple -- no big industries, not many machines or gadgets. Except for special craftsmen like silversmiths or stonemasons or bakers, there weren't many people with special training -- people who could operate machine tools, or design bridges and automobiles and electric machinery, or figure out new chemicals like silicones and nylon, or design radios.

That wasn't too long ago, either. Fifty years ago there was no automobile industry; there were no airlines or home radios or electric refrigerators; most houses were lit with gas or kerosene; movies were rare.

Things Have Changed

Yes it's only comparatively recently that we've needed skilled workers in such numbers -- engineers, chemists, metallurgists, mathematicians, advertising specialists, machinists, draftsmen, etc. Things have changed so much, really, that all of a sudden we find we just about have to have specialized training of some kind, in addition to a good educational groundwork, if we're going to get anywhere at all. All the best jobs -- and the best pay -- go to the people who are specially trained for them.

So you can see it will be smart for you to cash in on this need for special skills. And you can make it easier for yourself by doing some thinking about your career right now.

If you're like most people in school and haven't thought much about what you're going to do for a living some day, probably there are two or three things you'd like to know to help you decide. You'll want to know, for instance, what kind of work there is to choose from, and what jobs pay the best, and what kind of business to work for, and how to get the special training you'll need. Your guidance counselor can tell you more about this.

A big percentage of the people who work are working at things that need special training. Almost all of those in manufacturing need special training; all those in professional and related services need it; virtually all those in entertainment and recreation services need it; and most of those in public administration do, to mention just a few.

The Best Money

But let's look at it another way. Other statistics tell who earns the best money. It's the doctors, lawyers, teachers, advertising people, engineers, chemists, metallurgists, executives, managers, specially trained clerical workers, sales people, skilled craftsmen, etc. And you can bet your bottom dollar that most of them have had special training -- the higher the earnings, the more the training.

But money isn't everything. You'll find that you'll be happiest when you're doing something you like to do, something you're good at. And when people are good at something they usually want to be as good as they can be at it. That means they take special training in it.

For instance, suppose you're a singer; you have a natural voice. You won't be happy until you train it so it's as good as you can make it. And that's the way it is with most natural aptitudes. There are some outstanding exceptions, of course, but the good ones usually work hard training themselves to be tops.

So if you've gone along with us so far we think you'll agree that it's smart to start thinking about your future career now, while you're in high school. For then you can start picking up what special training you can as soon as possible, in addition to your general subjects.

Career Training

Take the fellow or girl who wants to be an engineer, for example. In order to make it easier for himself later, he'll make sure to get a good groundwork in math while he's in high school for engineers just have to have math, no matter what kind of engineers they are -- electrical, civil mechanical, or something else.

Another example would be the fellow who wants to be a chemist. Maybe he wants to be a druggist, or a chemical engineer or a research chemist. Whatever it is, he's going to need chemistry, and lots of it so if he's smart he takes all the chemistry he can get in high school.

The fellow or girl who plans to be a teacher will want to make his or her plans early, too. Such plans would include more training in the basic three R's and social studies. Additional training would depend on whether the teacher is going to specialize in some particular subject or do grade-school work in all subjects.

We can't tell you in this short space all you need to do to prepare yourself properly for what you want to be when you go to work to earn your living. Your guidance counselor can help you -- and we'll try to give you some suggestions:

Try to learn a little more about the different businesses and industries in this country today. Find out what they do in the electrical business, in the automobile industry, or the food industry, or whatever sounds interesting to you. Try, also, to find out just what people who work in the different occupations do.

Occupations Limited

We hope we've convinced you that you should be thinking about your career now. Let your motto be: start getting trained early. And don't worry too much for fear that the training you get will be wasted later because you get into work that doesn't call for it. It's bound to come in handy.

WORK IN NORWALK
HAS A HISTORY OF CHANGE

In your lifetime the areas of work to be found in Norwalk have changed very much.

When you were born one of the industries that employed the greatest number of people in Norwalk was the apparel industry (making clothes). Today, the number of people employed in the apparel industry in Norwalk is ½ of the number employed in 1960.

Today, the two largest industries in Norwalk the electrical equipment industry (places like Norden and Burndy) and the instruments industry (places like Perkin-Elmer) have grown by more than ½ of the workers employed in 1960. The printing and publishing industry has almost doubled in numbers of workers, and the food industry (places like Pepperidge Farms) and machinery industry (places like Nash Engineering) have grown. However, the textile industry leather industry and fabricated metal industry employ many fewer workers than they did when you were born; and just recently Norden has laid off many of its employees.

In your lifetime there has been a large increase in the numbers of jobs in retail and wholesale trade (stores), in banks, real estate, insurance, public utilities and construction. In fact, every day the world of work in Norwalk changes, and it will continue to change all your life. Are you ready for change? Do you know what the future holds in store -- FOR YOU?

OCCUPATIONS SHOWING A DECLINE IN AVAILABLE NUMBER OF JOBS

1. semi-skilled metal workers (not including machinists, tool and die makers and mechanics)
2. semi-skilled textile workers
3. farmers
4. farm workers
5. mine workers
6. assembly-line workers
7. draftsmen
8. foundry workers
9. longshoremen
10. mail clerks
11. packing plant workers
12. railroad workers
    a. dispatchers
    b. maintenance workers
    c. engineers
    d. conductors
    e. firemen
13. ship construction workers
14. steel workers
15. unskilled workers in all industries

OCCUPATIONS WITH A FUTURE IN THE 70'S

A. Professional and Technical

1. social scientists
2. engineers
3. natural scientists
    a. physicists
    b. mathematicians
    c. chemists
4. medical occupations
    a. registered nurses
    b. medical and dental technicians
    c. physicians
    d. surgeons
    e. social welfare workers
5. lawyers
6. architects
7. the ministry (ministers, rabbis, priests, nuns)

B. Business and Office Workers

1. sales people
2. store managers, operators, or owners
3. clerical workers
    a. secretaries
    b. typists
    c. receptionists
    d. stenographers
    e. business machine operators
    f. data processing workers
4. workers in finance, insurance and real estate
    a. agents
    b. brokers
    c. office workers

C. Public and Personal Service Workers

1. policeman
2. fireman
3. social and welfare workers
4. domestics (private household workers)
5. waiters and waitresses
6. cooks and bartenders
7. parking lot attendants
8. laundry and drycleaning workers
9. repairmen of all types

D. Manufacturing and Building Trades Workers (Skilled Workers)*

1. operating engineers
2. cement and concrete finishers
3. electricians
4. plumbers
5. carpenters
6. painters
7. paperhangers
8. sheet metal workers
9. tool and die makers
10. machinists
11. mechanics
12. skilled assemblers
13. inspectors
14. foremen
15. printing trades craftsmen
16. heavy equipment operators

E. Transportation and Public Utility Workers and Craftsmen*

1. truck, tractor and bus drivers

*New jobs will occur due to death or retirement of present workers.

SOME FACTS ABOUT THE FUTURE IN THE STATE OF CONNECTICUT AND NORWALK

1. During the 1970's, more young will be looking for jobs than every before.

2. However, there will have to be twice as many job openings created than now exist so that there won't be an increase in unemployment. Though 70% of these openings will occur because of the death or retirement of present workers many new jobs will also occur.

3. The greatest number of new jobs will be found in the trade and service* industries. There will be fewer government jobs, by 1980, while the number of skilled jobs in manufacturing or construction will remain about the same as now.

4. The greatest growth in jobs will be found in professional, technical, and business and office jobs. Because of automation, there will be fewer semi-skilled and unskilled jobs and agricultural jobs.

5. Between 1975-1980, the greatest number of students ever will be graduating from high school. Though more young people than ever before will be going on to college, twice as many as those going on to college (more than ever before) will be looking for work when they get out of high school. Nationally, 8 out of every 10 students who begin high school do not complete college. For only 3/4 of those who complete college are there jobs related to their college education awaiting them upon graduation.

6. The jobs of the future that will have the greatest growth will also require the most education. This does not mean that everyone will need a college education. However, many of the growing jobs will require training or schooling past high school -- in technical schools, community colleges, or apprenticeship programs.

7. In 1980, half of the people in Connecticut able to work will be 35 years of age or younger.

*These industries include occupations in sales, industrial and scientific research, business consulting services, resorts, beauty shops, hotels and motels, automotive and appliance repair and service stations, amusement and recreation, health, education, public safety, streets and highways, welfare, insurance, finance, real estate, communication and public utilities, and data processing.

6th Grade

We saw a filmstrip entitled. "What Good is School."

Why is school important to your future in the world of work?

What is your favorite subject in school?

Can you think of 5 jobs that would require you to have done well in your favorite subject in school?

1 ______________________________

2 ______________________________

3 ______________________________

4 ______________________________

5 ______________________________

Next to each of these jobs mark P (for people), T (for things), or I (for ideas, or data) to show if these jobs require you to work with people, data (ideas), or things.

Nathan Hale Middle School Norwalk, Connecticut

Name ______________________ Homeroom ______________

Address ____________________ Phone ______________

____

Height ________ Weight _____ Color of Eyes ____ Sex: M__ F__

School Attended:

Schools	Grades Attended

Health Record: What is the condition of your health?

Excellent ________ Good ______ Fair _____ Poor ______

Have you had any serious illness or injury within the last three years? Yes ________ No ________

If yes, please describe ______________________________

What do you like to do for fun? ______________________

What are your favorite subjects in school? ______________

What things (at home, school or work) do you do best? _____

In what kind of work situation would you like to work? ____

For what position are you applying? 1. ________________

2. ______________________ 3. ______________________

Previous work experience:

Employer	Type of Work	Salary

Signed ______________________ Date ______________________
Applicant

Signed ______________________
Parent

INTERESTS CONTINUUM GAME

people /____/____/____/____/____/____/____/____/things
*

people	data
data	things
administrative	technological
social	administrative
social	technological
language	mathematical
language	scientific
mathematical	scientific
business	mathematical
business	scientific
business	language
agricultural	scientific
agricultural	language
agricultural	mathematical
agricultural	business
mechanical	language
mechanical	scientific
mechanical	agricultural
mechanical	mathematical
mechanical	business
artistic	musical
literary	artistic

INTERESTS CONTINUUM GAME (Cont.)

literary /__/__/__/__/__/__/__/__/musical

*

performing arts	artistic
performing arts	musical
performing arts	literary
crafts	performing arts
crafts	musical
crafts	literary
crafts	artistic

LIFE GOALS GAME

1. Wealth
2. Adventure
3. Knowledge
4. Service
5. Power
6. Prestige
7. Security
8. Leadership
9. Family Life
10. Success

From the list on the left, choose the 5 goals that are most important to you. Put them down from most important to least important. Put the most important goal at the top and the least important at the bottom.

Using the goals from the box, show how important each goal is by dividing the circle below like a pie. Your most important goal would be the biggest piece. Your least important goal would be the smallest piece. Cut the pie to show how important each goal is to you. For each piece of pie, put the number of the goal you want that piece to represent.

APPENDIX C

POOL OF OBJECTIVES
Norwalk Career Education Project
Norwalk High School
William L. Stubbs
September 5, 1972
(Revised January 16, 1973)

I. Orientation (O)

For the student:

1. to participate in extensive orientation and exploration of occupational opportunities.
2. to become familiar with the various occupational clusters.
3. to investigate more closely those clusters in which he's interested.
4. to acquire useful information about the occupational structure of the economy.
5. to get to know the types of employment available in his community.
6. for the female student to be aware of the full range of opportunities ahead of her if she has the right educational training.
7. for the minority student to be aware of the full range of opportunities ahead of her if she has the right educational training.
8. for the student to know the process of securing occupational information about any occupation of interest as in the Career Materials Resource Center and use it.
9. for the student to know how to seek, find, and get a job.
10. for the student to have a realistic picture of what happens to students from Norwalk High after high school....ten year projections(s).

II. Understanding Myself (UM)

For the student

1. to be aware of his personal capabilities.
2. to identify his interests.
3. to identify and enumerate his personal needs and capabilities as related to the process of career choice.
4. to analyze and to express what he wants in a job.
5. to accurately assess his potentialities and to determine how he might optimally develop them.
6. to move in the direction of his goals.
7. to deal with the question, "Is my performance representative of the best that I can do?" and move in a more fruitful direction.

III. Career Exploration (CE)

For the student:

1. to consider different occupational clusters.
2. to explore in depth those clusters which appeal and for which he qualifies.
3. to develop a plan for career preparation and subsequent job placement that would enable him to enter and to advance in the field of his choice.

IV. Cognitive/Attitudinal (C/A)

For the student:

1. to perceive that all honest work has dignity and brings pride.
2. to develop positive attitudes toward work and employment.

3. to become aware that shortly he will face change and become a member of an independent adult world with more privileges and more responsibilities.

4. to perceive that one's work ties draw him into the mainstream of social life and usually provide his close friends and acquaintances.

5. to perceive that work and one's occupation provide a focus for personality organization for most men and many women....that one may acquire traits through occupations.

6. to see the relationship between what he is being taught in school and what he will be doing in the world of work.

7. to attend school each day unless legitimately ill.

8. to attend all classes unless legitimately excused from class.

9a. to experience a higher grade point average (higher than his previous record for preceding year.... higher than control group).

9b. to experience a lower failure rate (lower than his previous record for preceding year....lower than the control group).

10. to improve his ability to think.

11. to perceive that career decision making is an on going, developmental process....and never ending.

12. to explore and discuss the influencing variables/ determinants of career choice.

13. to be able to perceive that career development is continuous and orderly.

14. to understand that career development patterns may differ for men and women.

15. to perceive that life's tasks vary according to one's stage in life.

16. to understand his developmental stage and to perform acceptably those developmental tasks appropriate to his career interest and present stage.

17. to perceive that the occupational field one enters is related to his personal traits, his interests, the help available, amount of education, the availability of jobs....

18. to perceive that occupations have some characteristic requirements but that there are tolerances- there are a variety of jobs for an individual and a variety of individuals for a job.

19. to perceive that the degree of satisfaction obtained from work is a function of the degree to which one has been able to implement and strengthen his self concept.

20. to understand that success or failure on a job depends on:

    a. job performance
    b. how the worker plays his role in his work group (human relations).

21. to be aware of the factors that favorably influence progress and that those factors always exert an influence.

22. to realize that both ability and motivation are important, but that high motivation is as vital a commodity as talent.

23. to comprehend that all knowledge and abilities are important whether marketable or not.

24. to learn patience and to defer immediate gratification of his needs and to devise acceptable intermediary goals/rewards as well as long range goals/rewards.

25. to develop a sound approach to "knowing."

26. to perceive himself as free to choose a career and therefore responsible for the outcome.

27. to feel that he has a concrete, well thought out career plan.

28. to participate in career planning as a natural part--a required part--of the curriculum.

V. Skill Acquisition (SA)

For the student:

1. to be able to utilize improved effective study techniques while a high school student.

2. who plans to go to work right after high school to learn specific skills required for entry into his chosen occupational field.

3. to obtain occupational training in the career area of his choice.

4. to become economically independent upon the completion of his formal career preparation.

5. to prepare for a productive role in society.

VI. Decision Making (DM)

For the student:

1. to comprehend and to be able to utilize an effective decision making model.

2. to be able to display effective problem-solving behavior.

3. to be able to make intelligent career decisions--sensible choice(s) rather than haphazard chance.

4. to formulate a personal career plan.

5. to identify and to pursue a career/vocation that is consistent with his self concept and proven capabilities.

6. to perceive the importance of and to pursue that kind of education/preparation that might best strengthen his approach to stated career objective.

VII. Experiential (E)

For the student:

1. to have an educational program that is experience-rich as well as information-rich.

2. to try on for size various occupational roles.... vicariously.

3. to see, hear, feel, and smell the environment in which he may work if he chooses a particular occupation in which he is interested.

4. to have access to experienced people (worthy of emulation) in his area(s) of career interest.

5. to have an opportunity to test himself against the reality of the employment world.

6. to have the opportunity to enjoy actual work during his high school years.

7. to work in a summer employment opportunity related to his major career interest.

8. to participate in some socially constructive activity.

9. to obtain employment in a field in which he can realize ego satisfaction in his work.

10. to have access to an effectively functioning job placement center.

APPENDIX D

February 2, 1973

Topical Outline of Group Sessions

I. Orientation

- A. "Why Work At All?" (filmstrip)
- B. The Importance of Work to an Individual
- C. Explanation of Program to Students
- D. Objectives, Resources, Expectations of Students (Appropriate comments re: note taking, listening skills, and handouts)

II. Orientation to Career Materials Resource Center

- A. Introduction to Occupational Classification Systems (2)
- B. Emphasis on 15 Clusters
- C. Materials Available/How to Use (Handout)
- D. Start General Exploratory Reading

III. Self-Examination

- A. Census Article: Schooling and Income
- B. Speculative Group Discussion: Factors Influencing Occupational Choice
- C. Super's Theory of Vocational Behavior (Simplified)
- D. Focus on Process: Problem-Solving Method
- E. Self-Exploration Kit--(will need careful follow-up.. will need another class period)
- F. Establish a Folder for Each Student

IV. Self-Examination

- A. "Choosing a Career" (filmstrip Part 1)
- B. Holland's Theory of Vocational Choice--in a Nutshell (simplified)--handout
- C. "Choosing a Career" (filmstrip Part 2)
- D. (Next Class Session) Introduction to Self-Directed Search (SDS)/Students take SDS in class (complete at home)--a careful follow-up required

V. Career Exploration

A. Census Article: Population Projections and Quality of Life

B. Self-Directed Search--Springboard. Read/ Explore/Identify 3 Occupational Areas of Principal Interest (Career Materials Resource Center)

VI. Career Exploration

Structured Exploratory Guide (Hoppock's "Outline for the Study of an Occupation"): A Careful Examination of a Specific Occupation of Interest. (A careful follow-up is required. Handout to be completed, returned, carefully reviewed.)

VII. Orientation

"Jobs and Gender" (2 filmstrips)/Discussion

VIII. Orientation

"Jobs for the 1970's" Slide Presentation and Narration (Slides 1-12, 14-19, 39-40)
An overview of Nation's Jobs and Anticipated Employment Trends

IX. Evaluation--Information Sharing/Reflection (A Summing Up, A Reflecting) 2 Options

A. Student Writes a Paper

1. Selects Topics From Suggested List e.g., "My Career Explorations," "Where I'm Heading," "What We Did in Career Education," "What Should Be Done in Career Education"

2. Teacher Specified Topics

B. Small Group Activities

Audio Tape or Slide Tape Presentation (Topics Same As In A)

X. Formal Evaluation

Via Columbia and Our Efforts

11th Grade

Add

XI. How to Seek, Find, and Get a Job

APPENDIX E

The Ten Ten Unlimited

1. Ten Group Sessions
2. Ten Individual Work Sessions
3. Unlimited Number of Optional Individual Sessions

1. Ten Group Sessions

Students will attend 10 group sessions during which a minimal base of career related experiences will be provided. Attendance for project participants is required and will consist of one 45 minute period per week for 10 weeks.

Groups will not meet at the same time each week. Rather, they will meet on a rotating period basis. For example, a group might meet second period, then third period, then fourth period over the first three weeks and three meeting sessions.

This rotational time plan is suggested to allow maximum access to students and desired grouping strategies, to obviate schedule adjustments, and to minimize time missed from any particular class. For this phase of the project, students would miss a maximum of 10 total class periods. If we use periods 2-6, a student would be out of any given class no more than twice over the 10 week period.

We seek, and feel it imperative, teacher endorsement of our project and of this scheduling procedure for getting students into the project. We would like teachers to communicate their endorsement to participating students and to jointly (teacher and student) make provision for work missed on the two occasions of absence.

2. Ten Individual Work Sessions

In addition to the weekly group sessions, a participating student will be required to spend a minimum of one additional 45 minute period per week in the Career Materials Resource Center. The student is free to select the day and period for these individual sessions from a list of open times. He must then commit himself for a given day for the 10 week duration. His attendance for these sessions is required and will be recorded.

Students will have full access to the materials in the Center. Students will be provided with a structured guideline for utilizing these individual work sessions. Some specific "assignments" will be suggested. Additional programmed activities will be provided to give structure to these sessions, and to enable the student to move at his own pace and to explore to whatever depths he feels motivated.

A facilitative resource person will be provided each period the Center is open. A trained student helper will be available each period.

Resource materials must be used in the Center in order to be readily accessible to all users. Materials can not be checked out by students.

3. Unlimited Number of Optional Individual Sessions

In addition to the two required weekly sessions, students have the option of utilizing the Resource Center at any time that it is open for individual use. Full counseling and consultation services are available upon request of participating students. Open access to the resource materials continues.

Interested students can attend Center-sponsored film series, career conferences, and outside visits to work sites. As student career interests crystallize and as evidence of rather extensive career exploration and decision-making manifests itself, we will attempt to provide interested students with an opportunity to spend a day with a worker in a career area of principal interest to the student. If the student's interest in the career area continues, efforts will be made to provide him with a non-remunerative work/volunteer experience.

Although the planned duration of the "ten ten unlimited" is ten weeks, student participants will have continued access to the Career Materials Resource Center (at the discretion of the resource person in charge) as long as or when they perceive the need for information or consultation.

APPENDIX F

May - Career Conferences

Nathan Hale Middle School

Each 8th grade student selected 2 career clusters and were scheduled into every career conference to match his career cluster choice.

Monday, April 30

Clusters Concept

Health Services - Group I - Nursing Careers

Speaker - Mrs. Marion Ramsey
Director School of Nursing
Norwalk Hospital

Business & Office - Group B - Business & Office Careers

Speaker - Mrs. Mary Maciel
Assistant Supervisor Business Dept.
Board of Education

Manufacturing - Group C - Careers in Printing

Speaker - Mr. Lyman Boyum, Plant Manager
DeLuxe Check Printers, Inc.
Norwalk

Hospitality & Recreation - Group G - Careers in Recreation

Speaker - Mr. Edward Bonello, Assistant Director of Recreation
City of Norwalk

Marketing & Distribution - Group F - Careers in Sales & Service Repair & Installation

Speaker - Mr. James O'Donnell, Manager
Sears, Roebuck & Co., Norwalk

Friday, May 4

Clusters Concept

Business & Office - Group B - Careers in Management

Speaker - Mr. Bill Burdick
Conn. Light & Power Co.
Norwalk

Health Services - Group I - Jobs in Hospital

Speaker - Mr. Bruce Schraft
Department of Training
Norwalk Hospital

Construction - Group H - Careers in Building Trades

Speaker - Senator William Lyons, Jr.
President, Lyons Construction Co.
Norwalk

Personal Services - Group N - Careers in Mortuary Science

Speaker - Mr. Joe Bagalerio, Funeral Director
Collins Funeral Home
Norwalk

Transportation - Group L - Jobs in Trucking Industry

Speaker - Mr. William Kolker
Valleries Transportation Co.
Norwalk

Agri-Business & Natural Resources - Groups J & Q - Environmental Control & Ecology - Careers in Public Health

Speaker - Mrs. Vera Yordon, Public Health Nurse
Norwalk Health Dept.

Monday, May 7

Clusters Concept

Hospitality & Recreation - Group G - Jobs in Hotels, Motels, & Restaurants; Pro Sports

Speaker - Mr. Jack Sturm, General Manager
Holiday Inn
Norwalk
(also)
Retired football player-Buffalo Bills

Fine Arts & Humanities - Group A - Careers in Music

Speaker - Mr. Arthur Redner, Department Head
Music
Norwalk Board of Education

Public Service - Group E - Social Work

Speaker - Mrs. Shirley Sarkin, Social Worker
Norwalk Schools

Marketing & Distribution - Group F - Jobs in the Supermarket

Speaker - Mr. Keating
Stop & Shop
Norwalk

Public Service - Group D - Police Work & Crime Prevention

Speaker - Capt. Rudolph Costa
Norwalk Police Department

Friday, May 11

Construction - Group H - Careers in Architecture

Speaker - Mrs. Elizabeth Kittas
Self-employed architect

Friday, May 11 (Cont.)

Clusters Concept

Transportation - Group L - Jobs On the Railroad

Speaker - Mr. F.J. Villa, Jr.
Penn Central Railroad
New Haven

Public Service - Group D - Jobs in the Post Office

Speaker - Mr. Louis Imperato
U.S. Post Office
Norwalk

Agri-Business & Natural Resources - Group Q - Nursery Services

Speaker - Mr. Frank Kelley
Kelley Greens
New Canaan

Environmental Control - Group J - Careers in Environmental Control & Ecology

Speaker - Mr. Charles Hazeltine
Norwalk Dept. of Health

Monday, May 14

Fine Arts & Humanities - Group A - Careers in Humanities

Speaker - Mr. Lawrence Bloch
Dept. Head Social Studies
Board of Education

Business & Office - Group B - Accounting Careers

Speaker - Mr. Truting
Northeast Utilities
Conn. Light & Power

Monday, May 14 (Cont.)

Clusters Concept

Public Service - Group D - Fire Department

Speaker - Deputy Chief Yost
Norwalk Fire Department

Communication & Media - Group O - Jobs at Newspaper

Speaker - Mr. Francis X. Fay, Jr.
Norwalk Hour
Norwalk

Friday, May 18

Health Services - Group I - Medical Technology

Speaker - Mrs. Dorothy McIver
Training Director for Med. Tech.
Norwalk Hospital
Student - Donna Fontes

Manufacturing - Group C) Careers at Perkin-
Business & Office - Group B) Elmer

Speaker - Mr. Dennis
Employer & Employee Relations
Supervisor
Perkin-Elmer
Norwalk

Consumer & Homemaking - Group P - Careers in
Homemaking & Consumerism

Speaker - Mrs. Elizabeth Carta
Dept. Head (Homemaking)
Norwalk Board of Education

Personal Services - Group M - Beauticians & Barbers

Speaker - Miss Pat
National Academy of Hairdressing
Norwalk

Friday, May 18 (Cont.)

Clusters Concept

Agri-Business & Natural Resources - Groups J & Q -
Environmental Control   Careers in Landscaping

Speaker - Mr. Lewis Scott, Teacher
CVA

Monday, May 21

Fine Arts & Humanities - Group A - Careers in Art

Speaker - Mr. Robert Nelson
Asst. Dept. Head Art
Norwalk Board of Education

Business & Office - Group B - Careers in Clerical
Banking

Speaker - Mr. Frank Russo
Union Trust Co.
Norwalk

Public Service - Group D - Careers in Civil Service

Speaker - Miss Dana Alu
Conn. State Employment Service
Norwalk

Marketing & Distribution - Group F - Careers in
Advertising

Speaker - Mr. Lawrence Rabbitt
Knudsen-Moore Adv. Agency
Norwalk

Health Service - Group I - Careers as a Physician

Speaker - Dr. Joseph Rossi
Director of Pediatrics
Norwalk Hospital

Friday, May 25

Clusters Concept

Health Services - Group I - Careers in Dentistry

Speaker - Dr. Ernest Arnow
Norwalk

Marine Science - Group K - Careers in Marine Biology

Speaker - Miss Sheila Stiles
Fisheries Biologist
National Marine Fisheries Serv.
Milford

Communications & Media - Group O - Careers in Radio

Speaker - Mr. Richard Buonerba
Program Director WNLK
Norwalk

Environment Control & Ecology) - Groups J -
Agri-Business & Natural Resources) & Q
Careers in Conservation & Ecology

Speaker - Mr. Rizzoto,
Dept. of Environmental Protection
Norwalk

Wednesday, May 30

Manufacturing - Group C)- Careers at Pitney-
Business & Office - Group B) Bowes

Speaker - Mr. Peter Turner, Pers.Mgr.
Pitney-Bowes
Norwalk

Public Services - Group E - Careers in Law

Speaker - Mr. John A. Vigilante
Vigilante & Kimmel
Norwalk

Wednesday, May 30 (Cont.)

Clusters Concept

Marketing & Distribution - Group F - Careers in Insurance

Speaker - Mr. Donald Gaynor
Gaynor Insurance Co.
Norwalk

Health Services - Group I - Pharmacy

Speaker - Mr. Joseph Podrat
Pharmacist
Norwalk Hospital

Communication & Media - Group O - Careers in Telephone Company

Speaker - Miss Marsha Lambert
S.N.E.T. Co.
Norwalk

Friday, June 1

Public Service - Group E - Careers in Education

Speaker - Dr. Donald Buckley
Director of Teacher Personnel
Norwalk

Construction & Architecture - Group H - Union & Building Trades

Speaker - Mr. Thomas Yoczik &
Mr. Raymond DeRosa
Brotherhood of Carpenters
Local 210

Personal Services - Group M) - Careers in
Consumer & Homemaking - Group P) Fashion
Business & Office - Group B) Industry

Speaker - Mr. Miller, President
Elegant-Heir
Norwalk

Friday, June 1 (Cont.)

Clusters Concept

Hospitality & Recreation - Group G - Careers in Country Clubs

Speaker - Mr. William Warren, Owner
Silvermine Country Club
Norwalk

Speakers Who Canceled

Anne-Marie - Physical Culture
Colleen McGovern - Marketing & Distribution (Shoetown)
Dr. Don Hartrick - Veterinarian, Personal Services
Mr. Richard Shelley - Airlines (Bradley Airport)
Mr. Tom Kelly - Manufacturing (Nash Engineering)
Mr. Robert Guy - Manufacturing (Burndy)
Mr. Burton Albert - Fine Arts (Writing)
Mrs. Deloris Cogan - Consumer & Homemaking (Pepperidge Farms)
Mr. Fritz Henning - Fine Arts (Famous Artists)
Mr. William Guarnieri - Architecture & Construction (Building Dept.)
Mrs. Dorothy Draper - Hospitality & Recreation (Travel Agency)

Complaints

1 Algebra teacher complained -
Students were missing too much math - made "math more important" threat to students.

Band teacher would not excuse students from band.

Announcements every morning - students would forget to go to conference by 2nd or 3rd period. Teachers would not check lists every period to send students to conference. No conference had 100% attendance, only 75% attendance (average).

Evaluation

Discipline was good - could have been a little better.

Because Nathan Hale's students were exposed to various speakers under one cluster area, interest was not always on a high level with all students.

Evaluation (Cont.)

Students seem to enjoy the conferences, about 10% students did ask questions. Question and discussion time was always given at the end of each conference.

90% of the speakers seemed very pleased to speak to the students and were glad to be a part of our program.

90% of the speakers encouraged field trips to their place of business.

We used periods 2 and 3 every Monday and Friday. Career Education staff, Messrs. Gerner and Reilly, were used as hosts; also the two guidance counselors, Mr. Barber and Miss McMahon.

May - Career Conferences

West Rocks Middle School

Students selected 3 conferences of their choice. Only 3 specific interest areas. This method was better than selecting cluster groups. Student interest was greater at the conference. We used periods 2 and 3 every Tuesday and Thursday at West Rocks.

Tuesday, May 1

Jobs in Construction

Senator William Lyons
Lyons Construction Co.
Norwalk

Jobs in Hospital

Mr. Bruce Schraft
Training Director
Norwalk Hospital

Business Management Careers

Mr. William Burdick
Conn. Light & Power Co.
Norwalk

Thursday, May 3

Jobs in Public Recreation

Mr. Peter Gilman, Director
Recreation Dept.
City of Norwalk

Jobs in Printing Industry

Mr. Lyman Boyum
DeLuxe Check Printers
Norwalk

Thursday, May 3 (Cont.)

Careers in Art

Mr. Robert Nelson
Art Dept.
Board of Education

Business & Office Careers

Mrs. Mary Maciel
Board of Education

Careers in Nursing

Mrs. Marion Ramsey
Norwalk Hospital

Tuesday, May 8

Jobs in Trucking Industry

Mr. William Kolker
Valleries Transportation
Norwalk

Careers in Environmental Control & Ecology

Mr. Charles Haseltine
Department of Health
Norwalk

Careers in Architecture

Mrs. Elizabeth Kittas
Architect
Norwalk

Jobs in Post Office

Mr. Louis Imperato
Norwalk Post Office

Thursday, May 10

Careers in Music

Mr. Arthur Redner
Music Dept.
Board of Education

Jobs in Supermarket

Mr. Carlone
Stop & Shop

Jobs in Hotels, Motels & Restaurants

Pro Sports

Mr. Jack Sturm, General Manager
Holiday Inn of Norwalk

Retired football player, Buffalo Bills

Jobs in Police Work

Capt. Rudy Costa
Norwalk Police Department

Jobs in Social Services

Mrs. Shirley Sarkin, Social Worker
Board of Education

Tuesday, May 15

Careers in Medical Technology

Mrs. Dorothy McIver & student
Norwalk Hospital

Jobs in Consumerism & Homemaking

Mrs. Elizabeth Carta
Board of Education

Beauticians & Barbers

Miss Pat
National Academy of Hairdressing

Tuesday, May 15 (Cont.)

Pet Care & Veterinary Medicine

Dr. Donald Hartrick
Norwalk Vet Hospital

Jobs in Landscaping

Mr. Lewis Scott
CVA

Jobs With the Airlines

Mr. Irv Kurhan, Regional Flight Director
Mrs. Denise Hedges, Stewardess
American Airlines
New York

Thursday, May 17

Jobs in the Fire Department

Deputy Chief Yost
Norwalk Fire Dept.

Tuesday, May 22

Physical Culture

Anne-Marie Katz
Anne-Marie Figure Forum
Norwalk

Careers in Conservation & Natural Resources & Ecology

Mr. Martin Cherniske
Dept. of Environmental Protection

Careers in Dentistry

Dr. Ernest Arnow
Norwalk

Tuesday, May 22 (Cont.)

Jobs in Radio

Mr. Richard Buonerba
WNLK
Norwalk

Careers in Marine Biology

Ms. Sheila Stiles
Fisheries Biologist
National Marine Fisheries
Milford

Thursday, May 24

Careers in Nash Engineering-Manufacturing

Mr. Tom Kelly, Personnel Mgr.
and
Mr. William Majors, Project Engr.
Norwalk

Tuesday, May 29

Jobs in Education

Dr. Donald Buckley, Director
of Teacher Personnel
Board of Education

Thursday, May 31

The Union & Building Trades

Mr. Thomas Yoczik
Mr. Raymond DeRosa
Local 210, Brotherhood of Carpenters

Careers in Law

Mr. John Vigilante
Vigilante & Kimmel
Norwalk

Thursday, May 31 (Cont.)

Jobs at the Telephone Co.

Miss Marsha Lambert
S.N.E.T. Co. Personnel Office
Norwalk

Jobs in Country Club

Mr. William Warner
Silvermine Golf Club
Norwalk

Conferences Canceled

Jobs in Retail Service, Mr. James O'Donnell, Sears
Accounting, Mr. Ray Truting, C.L.& P., Northeast Utilities
Careers as a Physician, Dr. Joseph Rossi
Jobs in Fashion Industry, Mr. David Deitz, Elegant Heir
Writing Careers, Mr. Burton Albert
Jobs in the Food Industry, Mrs. Deloris Cogan, Pepperidge Farms
Art & Art Related plus Writing Careers, Mr. Fritz Henning
Work of the Building Inspector, Mr. William Guarnieri
Jobs in Travel, Mrs. Dorothy Draper, Norwalk Travel

Evaluation

Career staff Messrs. Reilly and Gerner plus counselors, Mrs. Bate and Miss Wesley, assisted Mrs. Petropulos as hosts for the conferences.

One teacher (Algebra) complained that students were missing too many of her classes.

Attendance to conferences was about 85%. Interest level was high, therefore, we had no discipline problems. Students were also socially very polite to all of our speakers.

The homemaking teacher, Miss Loughran, provided our speakers and hosts with coffee and goodies after the conferences.

Most of the speakers were pleased with the conferences and invited students to visit their places of employment and would be willing to speak again in the future.

APPENDIX G HASS BEEN REMOVED BECAUSE IT CONSISTED OF COPYRIGHTED MATERIAL.

Removed material consisted of: The Occutations Finder by John L. Holland and The Self Directed Search: A Guide to Educational and Vocational Planning by John L. Holland.

APPENDIX H

CAREER DEVELOPMENT INVENTORY

Form I

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Introduction

The questions you are about to read ask you about school, work, your future career, and some of the plans you may have made. The only right answers are the ones which are right for you. Later, some questions ask about career facts; others ask you to judge students' plans. Give the best answers you can.

Answers to questions like these can help teachers and counselors offer the kind of help which high school students want and need in planning and preparing for a job after graduation, for vocational and technical school training, or for going to college.

The First Step

You must use a Number Two pencil for all of the work which follows. Ask if you do not have one. Check your booklet to make sure it has 14 pages all in the right order. ...Now look at the printed answer sheet. At the top, fill in only your name, grade, sex, and school. Do that now.... Below the lines on the answer sheet is an area called "identification number." Your own number is there already.
This is your own answer number. Write it in the space below, along with your name and today's date.

__________ ________________, ______________ ______________
Identification Number   Last   First   Date
NAME

How to Answer

All your answers go on the answer sheet. Do not write any more in the booklet. Use only a *number 2 pencil* so the scoring machine can read your answers. Ask for a pencil if you do not have one.

Notice that the answers go *across the page*, not down.

After you choose an answer to a question, find the number of the question on the answer sheet and fill in the space between the dotted lines after the number of your answer. Completely erase mistakes or changed answers so they will not be scored. Do not make any extra marks on the answer sheet.

ANSWER ALL QUESTIONS. If you are not sure about an answer, guess. There is no time limit, but work as rapidly as you can; the first answer that comes to you is often the best one.

The questions begin on the next page.

I. How much thinking and planning have you done in the following areas? What kind of plans do you have? For each question below choose one of the following answers to show what you have done.

1) I have not given any thought to this.

2) I have given some thought to this, but haven't made any plans yet.

3) I have some plans, but am still not sure of them.

4) I have made definite plans, but don't know how to carry them out.

5) I have made definite plans, and know what to do to carry them out.

1. Finding out about educational and occupational possibilities by going to the library, sending away for information, or talking to somebody who knows about the possibilities.

2. Talking about career decisions with an adult who knows something about me.

3. Taking high school courses which will help me decide what line of work to go into when I leave school or college.

4. Taking high school courses which will help me in college, in job training, or on the job.

5. Taking part in school or out of school activities which will help me in college, in training, or on the job.

6. Taking part in school or after school activities (for example, science club, school newspaper, Sunday School teaching, volunteer nurse's aide) which will help me decide what kind of work to go into when I leave school.

7. Getting a part-time or summer job which will help me decide what kind of work I might go into.

8. Getting a part-time or summer job which will help me get the kind of job or training I want.

9. Getting money for college or training.

10. Dealing with things which might make it hard for me to get the kind of training or the kind of work I would like.

11. Getting the kind of training, education, or experience which I will need to get into the kind of work I want.

12. Getting a job once I've finished my education and training.

13. Doing the things one needs to do to become a valued employee who doesn't have to be afraid of losing his job or being laid off when times are hard.

14. Getting ahead (more money, promotions, etc.) in the kind of work I choose.

II. High School students differ greatly in the amount of time and thought they give to making choices. Use the statements below to compare yourself to the typical students of your sex in your grade on each of the following kinds of choices.

Compared to my classmates I am....

1) much below average, not as good as most

2) a little below average

3) average

4) a little above average

5) much above average, better than most

....in the amount of time and thought I give to:

15. Choosing high school courses.

16. Choosing high school activities.

17. Choosing out-of-school activities.

18. Choosing between college, junior college, business school, technical school, work, military service, marriage, homemaking, etc.

19. Choosing a college, branch of military service, wife or husband, etc.

20. Choosing an occupation for after high school, college, or job training.

21. Choosing a career in general.

22. How would you rate your plans for "after high school"?

    1) Not at all clear or sure.

    2) Not very clear.

    3) Some not clear, some clear.

    4) Fairly clear.

    5) Very clear, all decided.

III. Below are five possible answers to use in answering questions 23 through 33, questions about how much you know about the occupation you said you like best on page two. Mark the number of your choice on the answer sheet.

I know....

1) hardly anything

2) a little

3) an average amount

4) a good deal

5) a great deal

.... about:

23. What people really do on the job.

24. Specialties in the occupations.

25. Different places where people might work in this occupation.

26. The abilities and traits needed in the occupation.

27. The physical working conditions.

28. The education or training needed to get into the occupation.

29. The courses offered in high school that are the best for the occupation.

30. The need for new people in the occupation.

31. Different ways of entering the occupation.

32. The starting pay in the occupation.

33. The chances for getting ahead in the occupation.

IV. Here are five answers which can be used for questions 34 through 47. Use these answers to show whether or not you would go to the sources of information listed below for help in making your job or college plans.

I would....

1) definitely not

2) probably not

3) not be sure whether to

4) probably

5) definitely

....go to:

34. Father or male guardian.

35. Mother or female guardian.

36. Brothers, sisters, or other relatives.

37. Friends.

38. Coaches of teams I have been on.

39. Minister, priest, or rabbi.

40. Teachers.

41. School counselors.

42. Private counselors, outside of school.

43. Books with the information I need.

44. Audio or visual aids like tape recordings, movies, or computers.

45. College catalogues.

46. Persons in the occupation or at the college I am considering.

47. TV shows, movies, or magazines.

V. Here again are five answers which are to be used with the following items. This time use the statements to show which of the sources of information below have already given you information which has been helpful to you in making your job or college plans.

I have gotten....

1) no useful information

2) very little useful information

3) some useful information

4) a good deal of useful information

5) a great deal of useful information

....from:

48. Father or male guardian.

49. Mother or female guardian.

50. Brothers, sisters, or other relatives.

51. Friends.

52. Coaches of teams I have been on.

53. Minister, priest, or rabbi.

54. Teachers.

55. School counselors.

56. Private counselors, outside of school.

57. Books with the information I needed.

58. Audio or visual aids like tape recordings, movies, or computers.

59. College catalogues.

60. Persons in the occupation or at the college I am considering.

61. TV shows, movies, or magazines.

VI. Here, each question has its own set of possible answers.

62. Which one of the following is the best source of information about job duties and opportunities?

1) The Encyclopedia Britannica

2) World Almanac

3) Scholastic Magazine

4) The Occupational Index

5) The Occupational Outlook Handbook

63. Which one of the following would be most useful for detailed information about getting into college?

1) The World Book Encyclopedia

2) Webster's Collegiate Dictionary

3) Lovejoy's College Guide

4) Reader's Digest

5) The Education Index

64. Which one of the following pairs of occupations involves the same level of training and responsibility?

1) Tailor, Sales Clerk

2) Engineer, Banker

3) Tailor, Engineer

4) Banker, Sales Clerk

65. The occupational fields expected to grow most rapidly during the next ten years are:

1) Professional and service.

2) Sales and crafts.

3) Crafts and clerical.

4) Labor and sales.

66. Between 1910 and 1970, the industry employing the greatest number of workers changed from:

1) Agriculture to wholesale and retail trade.

2) Manufacturing to agriculture.

3) Wholesale and retail trade to manufacturing.

4) Agriculture to manufacturing.

VII. Occupations are different in the amount of education required for employment. Match the occupation in Column A with the amount of education usually required (Column B) by marking the number of the correct answer on the answer sheet:

COLUMN A	COLUMN B
Occupation	Education
67. Stenographer	1) High School Graduation
68. Dental Technician	2) Apprenticeship Training
69. Family Doctor (Physician)	3) Technical School or Community College (2 year)
70. Mail Carrier	4) College Degree (4 year)
71. Plumber	5) Professional Degree Beyond College
72. Computer Operator	
73. Bank Clerk	
74. Social Worker	

VIII. Many occupations use special tools. Below is a list of special tools or equipment and a list of occupations. Match the occupation in Column A with its equipment (Column B).

COLUMN A	COLUMN B
Occupation	Equipment
75. Electrician	1) Manikin
76. Bookkeeper	2) Ammeter
77. Bricklayer	3) Centrifuge
78. Dressmaker	4) Trowel
79. Medical Technician	5) Ledger

IX. Here again, each question has its own set of answers.

80. In the 9th and 10th grades, plans about jobs and occupations should:

1) be clear.

2) not rule out any possibilities.

3) keep open the best possibilities.

4) not be something to think about.

81. Decisions about high school courses can have an effect on:

1) the kind of diploma one gets.

2) the kind of training or education one can get after high school.

3) later occupational choices.

4) how much one likes school.

5) all of these.

82. Decisions about jobs should take into account:

1) strengths, or what one is good at learning and doing.

2) what one likes to do.

3) the kind of person one is.

4) the chances for getting ahead in that kind of job.

5) all of these.

83. One of the things that great artists, musicians, and professional athletes have in common is the desire to:

1) make money.

2) have large audiences.

3) be the best there is at what they do.

4) teach others to do what they do.

84. Mary thinks she might like to become a computer programmer, but she knows little about computer programming. She is going to the library to find out more about it. The most important thing for Mary to know now is:

1) what the work is, what she would do in it.

2) what the pay is.

3) what the hours of work are.

4) where she can get the right training.

85. Jane likes her high school biology and general science courses best. She likes to do her schoolwork alone so she can concentrate. When she begins to think about her future occupation, she should consider:

1) Nurse.

2) Accountant.

3) Medical Laboratory Technician.

4) Elementary School Teacher.

86. Peter is the best speaker on the school debating team. The school yearbook describes him as "our golden-tongued orator--a real nice guy who can listen as well as talk--he could sell refrigerators to the Eskimos". Peter will probably graduate in the bottom half of his class, although his test scores show that he is very bright. His only good grades (mostly B's) are in business subjects. His poorest grades are in English and social studies (mostly C's).

Peter's desire to become a trial lawyer is not very realistic because:

1) with his grades he will have difficulty getting into a four year liberal arts college.

2) he has poor grades in the subjects that are most important for law.

3) there is much more to being a lawyer than being good at public speaking.

4) all of the above are good reasons for thinking that Peter will have a hard time becoming a trial lawyer.

87. The facts about Peter suggest that he should think about becoming:

1) an accountant.

2) a salesman.

3) an actor.

4) a school counselor.

5) a lawyer.

88. Ernie took some tests which show that he might be good at clerical work. Ernie says, "I just can't see myself sitting behind a desk for the rest of my life. I'm the kind of guy who likes variety. I think being a traveling salesman would suit me fine." He should:

1) disregard the tests and do what he wants to do.

2) do what the tests say since they know better than he does what he would be good at.

3) look for a job which will let him use his clerical abilities but not keep him pinned to a desk.

4) ask to be tested with another test since the results of the first one are probably wrong.

89. Joe is very good with his hands and there isn't anybody in his class who has more mechanical aptitude. He is also good at art. His best subject at school is math. Joe likes all of these things.

What should Joe do? Should he:

1) look for an occupation in which he can use as many of his interests and abilities as possible?

2) pick an occupation which uses math since there is a better future in that than in art or in working with his hands?

3) decide which of these activities he is best at, or likes the most, and then pick an occupation which uses that kind of activity?

4) put off deciding about his future and wait until he he loses interest in some of these activities?

90. Betty gets very good science grades but this isn't her favorite subject. The subject she likes best is art even though her grades in it are only average. Betty is most likely to do well in her future occupation if she:

1) forgets about her interest in art since she is so much better in science.

2) doesn't worry about the fact that she isn't very good at art, because if you like something you can become good at it.

3) looks for an occupation which uses both art and science, but more science than art.

4) looks for an occupation which involves both science and art, but more art than science.

91. Bob says he really doesn't care what kind of work he gets into once he leaves school as long as it is working with people. If this is all Bob cares about he is likely to make a bad choice because:

1) this kind of work usually requires a college degree.

2) employers usually hire girls for such work.

3) people look down on men who work with people because such work is usually done by girls.

4) occupations in which one works with people can be very different from each other in the abilities and interests which are needed.

APPENDIX I

Formative Evaluation Report #1
Career Education Project
Norwalk Public Schools
October 20, 1972

Norwalk High School

Project schedule: The project at the high school level has not been implemented to date. On the one hand, it is commendable that the staff recognizes the importance of a well planned foundation-however, it is also symptomatic of some larger issues. While it would probably not be useful at this time to reflect back on the origins of the projects, the staff should address itself to the overall administration of the project. Is the leadership and responsibility too diffuse? Is the articulation and coordination among schools adequate? Are staff roles clearly defined in terms of responsibility as well as accountability? Is the project accepted and perceived as a high priority concern (eg. On balance, was it a wise decision for Dr. Stubbs to be involved in schedule adjustments?)?

Public Relations and Communication: The involvement with the local Chamber of Commerce and church groups represents a positive first step in gaining project support in the community. It seems likely that there will be resources in the community which can be identified and used to supplement project activities. In an attempt to further enhance this community support and involvement, it is suggested that the staff consider the possibility of a Career Education Newsletter to Norwalk residents. Systematic press coverage might also serve this end. In terms of intra-school communication, the Career Education Bulletins initiated in the high school should be continued - in addition to regularly scheduled staff meetings.

Resource Center: While the physical attractiveness of the Center could be improved-it is more imperative at this time to take steps to see that the holdings are as comprehensive as they ought to be for a resource center. It is understood that the full complement of resource material has not yet arrived. Again, this is largely a function of the fact that there was not enough lead time to set up the program. The second area of concern with respect to the Center is related to the accessibility of materials. In terms of the "risk-benefit" ratio, it might make more sense to accept some losses by having materials readily available for direct student use. With this in mind, the end wall of the Center could economically be converted to shelve space.

Project Activities: A top priority task must be the completion of the activities subsumed under the Basic Treatment Outline. It is suggested that a time-sequence of treatment activities be generated (this should help in keeping the project on schedule for the remainder of the year). This suggestion is not intended to over-structure or place limits on the scope of activities. Likewise, the tentative pool of objectives should be reviewed and target objectives identified - and linked to specific activities or aspects of the treatment.

General Feedback and Suggestions:
(1) Consider the possibility of a half-time secretary at the high school level.
(2) In terms of the readiness and motivation of the sample students, consider giving them an opportunity to express their needs and to raise questions with which they would like help this year.
(3) Consider sharing a draft model of a "research-study" with the counselors, something which might be helpful to them in developing their own mini-projects.
(4) Future follow-up activity. Thus planned for aspect of the program may yield richer data if the present follow-up questionnaire were expanded.

Middle and Elementary Schools

Project implementation has begun at these levels. The behavioral objectives appear appropriate in nature and scope. The materials already in use and those being readied for future use are relevant and comprehensive. The activities planned to promote each of the behavioral objectives will be quite challenging but manageable.

Lines of communication among component schools are favorable at this initial stage.

Within the elementary school program, there had been an initial over-reliance upon the use of filmstrips for information dissemination. This was noted by the staff and is being rectified by re-arranging the sequence pattern of information dissemination and "hands on" activities.

Principals in the schools where the elementary and middle school programs have been operationalized at this date, have reacted positively to the activities taking place - and the children's reaction to their experiences.

In-Service Workshop

The participants' evaluation of the workshop indicate (1) that the program was well received - almost all of the participants reacted positively to the materials, organization, and presentations, as well as the staff involvement (2) however, within this favorable context, most participants expressed a need for more specific direction.

Evaluation Report #2
Career Education Project
Norwalk Public Schools
February 20, 1973

This second formative evaluation report responds to the four-month period of career education activity -- October 20-February 20.

General

The third party evaluators' activities during this four-month span included the following:

ten day-long visits with involved staff at their schools;

meeting with Norwalk Career Education Project Steering Committee and Connecticut State Representative, Senator-elect William Lyons and wife;

meeting with Steering Committee and Connecticut State Office of Education Representatives Dulberg, Wilson, and Drewniany;

attendance at USOE sponsored Career Education Conference, Arlington, Virginia, December 17-19, 1972;

attendance at several career education presentations, American Personnel and Guidance Association Convention, San Diego, California, February 9-12, 1973;

document analysis of Norwalk, other Career Education project site reports, materials, publications, etc.

Norwalk Career Education activities have moved according to schedule with some irregularities at the High School level. This report will discuss the progress of the project implementation and impact at each of the three major levels involved -- elementary, middle school, and high school.

Elementary Schools

As an exemplary program of one year duration, the thrust of the evaluation at the elementary school level, and to some degree of the middle school level, is to determine relevant career education objectives and subsequent school activities which promote attainment of these objectives. The important task, as deemed by the third party evaluators, the local career education steering committee, and the State Department of Education representatives present at the January 17th Project staff meeting, is to carefully monitor goal attainment in order to ascertain relevancy of each prescribed goal to the elementary school population of Norwalk and the contribution level of each of the school activities intended to facilitate that goal achievement. The final results of this evaluation scheme should be the enumeration of comprehensive career education goals appropriate to Norwalk elementary school children and efficient "packaging" of the nature and scope of activities which promote them. It may be advised that the set of recommended activities be incorporated within the mainstream of the present elementary school curriculum areas -- Social Studies, Math, Language Arts, and Science, to be supplemented with in-school career education "resource centers." The exact format will be recommended at the year's end when clear projections of future funding and staff are available.

Specific techniques employed to gain information concerning the progress and impact of the Career Education Program at the elementary school level were document analysis, lesson and activities observations, and structured interviewing. As mentioned in Evaluation Report #1, careful review of the projected elementary component objectives and program activities found them to be "appropriate and comprehensive. . . challenging but manageable." Through the highly cooperative efforts of the Career Education Project Coordinator, the two Career Education resource teachers, the three elementary school administrators, several classroom teachers, and parental support, the challenge is being met. This positive summative statement is illustrated from the following data:

- in addition to speaking positively about the Career Education Program in their schools, all three administrators involved demonstrated a clear knowledge and appreciation for the concepts and attitudes which comprise the units at this level. Each principal offered anecdotal data of children's and parents' responses to various activities or concepts involved in the program at their schools. They noted teachers in their schools who were supplementing the program's regular activities with projects of their own. Two of the three candidly reported that there were a few less than enthusiastic teachers who seemed to feel that career education was just another subject which squeezed heavily upon their already too brief time for "regular" subject matter dissemination.

In addition, all three principals voiced the same reservations concerning the present lack of clear integration of career education concepts into the mainstream of the curriculum content of the 4th and 5th grades. Their suggestions, and those of some of the teachers, have already prompted shifts in lesson and activity sequencing and certainly will affect the broader format being considered for next year. At present, Social Studies is the only subject alluding to career education in a "natural" way.

- Classroom teachers interviewed were generally enthusiastic about the career education program as they understood it. They, as the principals, were able to relate anecdotally children's and parents' responses to the program. Their major concern centered around the degree of planned involvement they are to have now, and next year. As is usual with experienced self-contained classroom teachers, there appears to be some difficulty with personal roles when someone else (career education resource teacher) is teaching their children. Teacher involvement has ranged from non-involvement to practically taking over the lesson. This difficulty will be worked out with clearer directions from their building principals as to their responsibilities and better knowledge of the style and "person" of the career education resource teacher.

- An additional career education resource teacher has been hired 1/2 time to work in the Naramake School. This addition became necessary due to a protracted illness of the original resource teacher and the mounting evidence that one person would not be able to ready materials and do all the lessons for the three schools involved. Mr. Ryan, principal of the Naramake School, is confident that the program in his school is now operating in a functional manner.

- Program objectives have undergone only slight modification since their conception last summer because the objectives are being achieved. Activities and sequencing have shifted quite a bit. The fluidity of the activities which promote the objective achievement is a credit to the program coordinator and the career education resource teacher. Also, detailed evaluation of objective attainment without making every lesson and activity "like a test" is being accomplished. Exacting descriptive data on objective attainment will be included in the next report.

- The field trip to Bradley Airport (Transportation Cluster) and subsequent in-school activities received much positive attention from children, parents and community. As a result of careful planning and follow through, the mileage of this, the most expensive single activity of the elementary school component, has been considerable.

- Observations of, and discussions with children interacting in the career education program validate the expressions of the administrators and teachers that the students view career education as a favorable experience.

- Document analysis of several other career education projects indicates that in relative terms Norwalk has structured an excellent program for the 4th and 5th grade levels. One aspect that Norwalk chose not to emphasize at this level was the "resource center" concept. The ethos of the "classroom" organization pattern evident in Norwalk elementary school favors this present plan and possibly would deter maximum resource center use by children. However, possibilities should be considered for employing some of the positive aspects of the resource center concept next year.

Middle Schools

As the year progresses, it becomes more apparent that the middle school behavioral objectives are the most challenging in terms of their demands on students and staff. The objectives evolved from research, brainstorming, and DHEW published guidelines. The difficulties which are now being experienced in the 8th grade program and to some degree in the 7th, are to be expected when one looks retrospectively at their inception. Many of the skills and attitudes prescribed for 7th and 8th grades piggy back on competencies to have been achieved at earlier levels. As this is the first exposure to particularized career education activities, the upper grade students are experiencing the lowest success rates with the more sophisticated objectives. Interestingly enough, however, they have a positive attitude toward the program. A shift to more plausible objectives, given this is the first year of the program, and toward more "hands on" activities, rather than the previous heavy emphasis on fact dissemination, is now underway. This is not to say, however, that the general sense of the 8th grade behavioral objectives has been lost. While some goals are being modified, the curricular activities are receiving most of the refurbishing so that there should be some achievement of even the highest level competencies. Again, the program coordinator and resource teacher are carefully monitoring goal attainment and activity impact. Unlike at the elementary level, it has been difficult to keep the goal evaluation from seeming "test like" at the end of each activity or lesson. This problem is presently being given attention and within group sampling procedures may be recommended.

A questionnaire has been devised, distributed and quantified to check student perceptions of the career education program for all three grade levels. More than 4/5 of the students have responded favorably to their experience with career education at each grade level. They have also been quite unanimous in their recommendations that the career education program be spread out for more than a series of two-week "shots," although they are not requesting that the content necessarily be lengthened.

Teachers, especially the Social Studies teachers who have had two weeks lopped off their program to make room for career education, would also like to see a spreading out of activities in the future. However, these teachers have not yet volunteered ways in which they perceive integrating career education into their existing programs. Several Social Studies teachers are coming close to this in that they have mentioned that they are not being "used effectively" within the program. The career education staff has begun to address these teachers, and others, to begin formulating plans for curricular areas integration. Department Chairmen will be asked to become involved.

Principals of the two schools were interviewed to gain an understanding of their personal views toward the present functioning of the career education program, their perceptions of its impact on students, teachers, and parents. Both principals are in agreement with the basic philosophy underlying career education for young adolescents. As with the elementary school principals, they have taken time to carefully review and familiarize themselves with the objectives, materials, activities, and projected outcomes of the programs being implemented in their schools. Each principal was "on top" of the career education activities and teacher, student, and parent feedback for his school. In general, there was consistency across schools as to the positive and the negative aspects of the middle school program.

- lack of clear cut coordination between the career education resource teacher and the regular teaching staff. Admittedly, this is a function of the new program being superimposed upon the existing programs. A major task for this year will be to work toward better coordination, role delineations, and career education -- traditional curriculum integration. The principal of Nathan Hale School is designing a most intriguing plan which may be feasible for his school. This plan will be given more attention in the next report when more information about future funding and personnel support is available.

- Too few "hands on" activities in 8th grade program as mentioned earlier, this problem is already being remedied.

- Students enthusiastic about their participation in the program, especially the excellent "hands on" experience in plastics and with the communications cluster.

- Parental support for the program as they (parents) understand it. The program did receive scheduled time at the Parent's Night at each school.

- Teachers and administrators appreciation of the efforts of the resource teacher.

Goal achievement and program activity impact will continue to be carefully monitored in order to increase the effectiveness of the "packaging" of each lesson. New activities and lessons of differing formats should be experimented with, especially as an increasingly clearer picture of the financial constraints of next year's program becomes available.

Guidance counselors and other support personnel will be consulted to gain possibilities of their having more functional relationships with career education. Presently, they are observing some of the resource teacher's activities and opening up their roles to be career education supplementary "resources" for children who seek their assistance.

Professor John Holland has been consulted with extensively and has offered suggestions which have allowed for fruitful student experiences with his Self Directed Search instrument. A new form, possibly even more relevant to young adolescents, is being forwarded to the program coordinator for review. Guidance personnel could be particularly helpful in working with students to help personalize and assimilate the information gained from the instrument.

Expanding the present career education resource centers in each school should be considered, especially in the light of tenuous fiscal resources for next year. Some systems, such as San Diego County, have developed "career centers" which serve rather ingenuously or career education delivery systems for their middle school population. This, and similar plans which call for minimal funding should be reviewed. The center approach would also remove some of the overload recently experienced by the resource teacher who finds herself responsible to be all things to many different people. Many of the students who have taken so enthusiastically to the experiential aspects of the program would probably react likewise to "their own" center, where they share responsibility for materials accumulation, physical comfort (furniture, filing accommodations, space arrangements, etc.) and record keeping.

Norwalk High School

The third party evaluation team has participated in two district-wide staff meetings which were also attended by local and state education representatives. The specific goals of the several components of the Career Education Project were carefully reviewed, and a critical analysis of all project activities was conducted.

The evaluation team has continued to monitor all phases of the project by engaging in a regular sequence of on-site visits. All project staff members and most of the support staff personnel at the high school have been interviewed. The lines of communication between the evaluators and the project staff are open, and this has contributed significantly to a constructive exchange with respect to the progress of the project at the high school level. The staff is to be commended for its spirit of cooperation and responsiveness to feedback.

There are several aspects of the high school program which are designed to have a broad impact on large number of students. The nature of these activities is such that their impact will not be clearly identifiable in a terminal evaluation, and therefore should be recognized at this point.

Project WERC (Why Not Explore Rewarding Careers?) is a well planned film series which will enable interested students to become familiar with a wide range of occupational families. An added feature of this film series is that it makes provision for students to come to the Career Resource Center, and for teachers to build in career related content in their instructional activity. The second activity to be recognized is the series of Career Conferences. By invitation of the building principal, Mr. William A. Moore, department heads were encouraged to organize career conferences around one of the fifteen occupational clusters most related to their content areas. The response exceeded expectations and whereas approximately eight such conferences were proposed, the number has been increased to twelve. The first of these conferences conducted in December was sponsored by the Practical Arts Department in conjunction with the Career Education Staff and focused on the automotive field. An enormous amount of thoughtful planning and preparation (conference format, audience development, hospitality, press coverage, etc.) contributed to its success. The proposed career conference schedule runs through May 30 and includes the names of the departmental sponsors, conference titles, and career education advisors.

The career education staff at the high school is encouraged to continue its investment in activities such as those just alluded to, as well as the alumni follow-ups, student career interest survey, and employment surveys. Despite the fact that it will not be possible to link measurable outcomes with these activities, it is quite obvious that they will have had a most pervasive influence on the career orientation of the student population.

The summative evaluation for the high school component will entail the usual experimental "treatment" - "no treatment" design. Students who are participating in the particular career education activities which are discussed below will be the experimental subjects. The Career Development Inventory (see attached rationale for the selection of this instrument) will be administered to all the students who:

a) are involved in the career ed/civics plan.
b) have participated in the construction and communication clusters.
c) completed the first 10-10-unlimited cycle.
d) are represented in correspondingly appropriate control groups for treatment categories a, b and c.

Data will be analyzed experimental-control, and across the three treatment groups. Data for each treatment and non-treatment group will be reported in terms of sex, IQ, G.P.A., and age. Additionally, it is planned that students in the clusters will complete questionnaires which are being developed by the Career Education Staff.

Attention will not be focused on several on-going aspects of the high school component. The feedback is intended to pinpoint relative areas of strength and weakness, and to challenge the staff to even higher levels of effectiveness.

Ten-Ten-Unlimited: The first cycle of students (approximately 90) have completed the "10-10-Unlimited" component of the high school program. The students' enthusiasm with respect to this activity fell short of the staffs' expectations, and this condition was, in part, reflected in a declining attendance pattern. It should be noted that while this aspect of the program was conceptually sound, there were system-wide constraints which appear to have compromised its effectiveness. Reference is made specifically to a) the perceptions of teachers and counselors who view this component as a relatively low priority activity, and b) uncoordinated changes in the scheduling of periods to accommodate "exams" and other special school-wide events.

etc. In response to this condition, the 10-10-unlimited component will be built into the regular curriculum during the second semester. This activity will be engaged in as a part of the ninth grade social studies program. Approximately 300 students will be exposed to the treatment in this manner.

Resource Center: Student use of the center is limited in terms of the number of students who have "taken hold" and are actively using the available resources. Again this must be explained in terms of the widespread student perception that this activity is an extra or additional "chore." Student use must be fit into an already full schedule of credit-bearing curricula activities. It is unlikely that this condition will be remedied by simply exposing students to a more intensive orientation. The solution lies in the ability of the school to tie the Resource Center into the existing structure. This may be accomplished, for example, by linking it to the on-going guidance services program or by encouraging teachers to make assignments or refer students to the Center -- in much the same manner as students are called upon to use the library.

Construction Cluster: The focal point of this cluster is the construction of a section of a house. The work completed to date is of high quality. It should be noted, however, that the project is barely off the ground -- and the precise nature of work beyond the foundation and flooring structure leaves one with several unanswered questions. While reference is made to plumbing, wiring, roof, siding, windows, cabinets, etc., there is no coordinated plan or timetable of building events with clearly delineated roles and responsibilities outlined. There are additional concerns and questions with respect to this cluster which ought to be addressed at this time:

1. What was the rationale for constructing the house section in the electronics classroom? The room is occupied for unrelated instructional activity six periods each day. This condition places an unreasonable burden upon those charged with the responsibility of executing this particular project.

2. The project does not involve anywhere near the number of students who could potentially profit from such an experience. For example, the blueprint development was largely the work of only one or two of the architectural drafting students. And whereas early projections indicated that approximately 175 students would participate, we now find 14-15 students actively engaged in the project.

3. It is difficult to discern a comprehensive career education thrust in this cluster. The construction of a house section should encompass more than skill development for the students involved.

Communication Cluster: The principal focus of this cluster is the production of a school newspaper. Again, the number of students actually involved is limited. For the most part, the students are volunteers -- as opposed to tapping into existing structures like photography and journalism classes. In a general sense, the scope of the project is restricted, with little effort being made to embrace the many facets of communication media. There is no evidence of a "career education umbrella" of which the specific newspaper project would be the central action focus.

Business Cluster: This cluster has not been started to date. Given the present situation, it has been recommended that this cluster be shelved until such time as the probability of success falls within reasonable limits.

General Feedback and Recommendations:

1. It is recommended that a district-wide staff meeting be held to reassess and perhaps further clarify lines of communication, role definition, accountability procedures, and coordination and administration within and among building units.

2. It is recommended that the newly generated "civics/careers" program, the heart of which calls for "10-10-Unlimited" material to be condensed and worked into appropriate units in on-going Civics classes be implemented immediately. (The plans for this change are excellent.)

3. It is recommended that an attempt be made to implement in the clusters the material cited (re: career education concept) under Sections A and B of Dr. Stubb's descriptive presentation to community groups.

4. It should be required that the staff continue to systematically collect demographic and other variable-relevant data for all control as well as experimental subjects. (The data collected on the 99 control and experimental students who completed the first cycle of 10-10-Unlimited is an excellent model.)

5. The staff has agreed to refine and complete questionnaires to be used as one evaluative index of the relative success of the two cluster projects.

Rationale Undergirding the Use of the CDI

Norwalk Career Education Project

Research instruments designed to assess vocational maturity in adolescents have been constructed by a number of vocational psychologists (Crites, 1961, 1965, 1969; Gribbons and Lohnes, 1968, 1969; Westbrook and Clary, 1967, 1970; Super and Kowalski, 1967 . . .etc.). We have reviewed these pioneering efforts and assessed the strengths and weaknesses of their instruments. It is our studied judgment -- given the population being served and the multi-faceted program of the Norwalk Project -- that the Career Development Inventory (CDI) represents the most appropriate available instrument.

The CDI is an objective, multifactor, self-administering, paper-and-pencil inventory measuring the vocational maturity of adolescent boys and girls. It yields three scale scores, two of them attitudinal and one of them cognitive, plus a total score. The names of the scales are: Planning Orientation (attitudinal); Resources for Exploration (attitudinal); Information and Decision Making (cognitive). The aggregate of the scales then represents an overall measure of vocational maturity as defined by the individual scales. Given the fact that the Norwalk Project seeks to develop a planning orientation toward careers, knowledge of the use of resources in exploration, and knowledge of decision-making and of occupations, the CDI represents a suitable instrument.

The reading difficulty of the CDI makes its use appropriate at and above the sixth grade, and its vocabulary and content make it acceptable to junior and senior high school students in any grade. Moreover, the instrument was reviewed with respect to its sensitivity to the various ethnic groups which may be represented by the student population. We anticipate no difficulties in this area.

Given the foregoing considerations, we are requesting your approval of the use of the CDI as an instrument to be employed in the evaluation of the Norwalk Career Education Project.

Submitted by: Thomas M. Niland, Ed.D.

David P. Garrahan, Ed.D.

Principal Evaluators
Teachers College, Columbia University

Date: January 24, 1973

APPENDIX J

Career Education Workshop Agenda

Monday	August 21 - 8:30-12:30 P.M.	
	Norwalk Career Education Proposal	Forrest E. Parker
	Career Education in Norwalk Public Schools	Dr. Richard Briggs
	Introduction to Career Education	Mr. Saul Dulberg
	Film "Career Education"	U.S.O.E.
	- Coffee Break -	
	Discussion Groups	
	Role of the Guidance Counselor	Dr. William Stubbs
	Role of the Career Education Staff	Dr. James Medved
Tuesday	August 22 - 8:30 A.M.-12:30 P.M.	
	Career Education's Role in the School Curriculum	Dr. Vincent Cibbarelli
	Integrating Career Education into the Curriculum	Mr. Earl Richardson
	Film "I Want to Be"	
	Career Games	
	- Coffee Break -	
	Discussion Groups	
	High School Counselors	Dr. William Stubbs

	Middle & Elementary Staff	Dr. James Medved
	(Career Activities)	Forrest E. Parker
Wednesday	August 23 - 8:30 A.M.-10:00 A.M.	
	Materials Preview and Curriculum Development in Groups	
	- Coffee Break -	
	10:00 A.M.-12:00 A.M.	
	Research in Career Education	Dr. Norman Walsh
	The Research Design for the Norwalk Career Education Project	Columbia University Research
Thursday	August 24 - 8:30 A.M.-9:00 A.M.	
	Tape talks on Career Education Video tape previews	
	9:00 A.M.-10:00 A.M.	
	The role of Guidance in Career Education	Dr. Edward McEnroe
	- Coffee Break -	
	10:30 A.M.-12:00 A.M.	
	Curriculum Development in groups	
	12:00 A.M.-12:30 P.M.	
	Summary	Staff

APPENDIX K

Career Conferences-Proposed Schedule

Date	Departmental Sponsor	Conference Title	Career Ed.Advisor
Jan. 8,9,10,11	McGorty	Marketing & Distribution	Hoover
Jan. 31	DeTomasc/Sallick/Rebe	Health	Hoover/Stubbs
Feb. 14	Jakob	Public Service	Hoover/Stubbs
March 7	Kuzman	Construction/Manufacturing	Kimberley/Stubbs
March 14	Cronin	Recreation	Hoover/Stubbs
March 21	McMahon/Rudolph	Communication & Media	Daily/Kimberley
April.4	Vigilante	Foreign Languages	Daily/Stubbs
April 11	Drenosky	Business & Office	Kimberley/Stubbs
April 25	Stubbs/Kimberley	Career Opportunities in the Military	
May 2	Guckel	Consumer & Homemaking Education	Daily/Stubbs
May 9	Clark	Mathematics	Hoover/Stubbs

Date	Departmental Sponsor	Conference Title	Career Ed.Advisor
May 16	Rebe	Environment (Science)	Kimberley/Stubbs
May 30	Matz/Pennington	Fine Arts (Music, Art)	Daily/Stubbs

APPENDIX L

Evaluation of Career Education Program in Naramake School

January-June 1973
Nancy A. Feige

The elementary Career Education program successfully accomplished three major objectives. The first and most important objective was to help the students understand that the kinds of people they are, their interests, and their special abilities are related to their future roles in the world of work. Introspective activities such as role playing, career education games and interest sheets aided the students' self-awareness. A second and related objective was to help the students understand a career problem or situation and work out an appropriate solution or behavior pattern for it. This objective was accomplished through role playing and "hands-on" activities. The third major objective was to help the students understand the relationship of the educational curricula and the work community. This objective was accomplished through visitations from community workers and career related activities done in the regular classrooms.

An evaluation of the elementary Career Education program in Naramake School completed by the fourth and fifth grade students is attached. The results of this evaluation indicates the following.

Field trips are always a success and the majority of the students have suggested that the trip to the airport or a different trip be scheduled for next year.

"Hands-on" projects are very popular with the fourth and fifth grade students. They were elated to work with wood and tools. This activity allowed some students to assume responsibility for doing their jobs well and to cooperate with their peers in an assembly-line situation. They were very proud of the finished projects which they took home. The students also enjoyed making murals and posters about Career Education concepts such as advertising their manufactured products and illustrating health and safety rules. The fourth graders carved the alphabet into linoleum blocks and printed them. One class composed a poem about Career Education which they printed and posted on the bulletin board for an activity in Communications and Media.

Role playing activities were also successful in the elementary Career Education program. Students interviewed each other for jobs in the manufacturing company. Some students commented that they got the feeling of what a job was like in a business. The fourth graders ran a beauty parlor, barber shop and health spa. Some students were employees and others were customers and almost all expressed a desire to continue the activity beyond the time allotted for it. The fifth graders presented a talent show. Some students were directors, producers, script writers, announcers, stage hands and performers. Many enjoyed seeing their peers' "talent" and they enjoyed the freedom they had to "do their own thing." Another role playing activity in the fifth grade program was a recreation club in which students acted as recreation directors and taught their classes some games.

The resources of the community were tapped with the visitation of a police officer and sanitation engineer to the fourth grades for the Public Service cluster. The students appreciated these visitors and expressed a desire to visit their places of work. Some fifth graders requested they have visitors next year.

The reactions to the Career Education games were favorable. Students claimed it was interesting to see what their peers liked and to decide what they liked themselves.

The audio-visual materials used in the elementary Career Education program were filmstrips, films, and comic books. The marine science films were very good according to teachers and pupils. The science teacher said she showed some of the films twice to the same class. Many students suggested they be used next year. The filmstrips were good but the students got tired of them from over-exposure. The comic books were a success in the fourth grades but the fifth graders did not care for them. The reason for this difference may be because the fourth graders had several opportunities to read them and the fifth graders only saw the comic books once.

Most of the activities in the elementary Career Education program were successful and if possible should be incorporated into the program for next year. Many of these activities can be conducted by the regular classroom teacher with the guidance of a Career Education specialist.

Reactions: Career Education Program
Elementary Level

Jo Merle Waldron

Student: The program was received fantastically by the 4th and 5th grade students. The 4th graders are going around very smugly because they will still be a part of the program next year; they thought that the fifth graders would not have Career Ed. any more since they were leaving the building. The 5th grades also thought this to be true, and some expressed the desire to stay back in order to still have Career Education! They were all quite relieved when I told them that the middle schools would have it also.

Personal: In order to meet the objectives of this program, I learned many concepts, and developed many activities and methods; which, by all indications, were invaluable additions to the educational enrichment of the students in the program. These activities, concepts, and methods are also an invaluable addition to me, professionally, as they will greatly enhance my effectiveness as an educator.

Resulting from a general orientation to the World of Work, and simulations of the clusters, both grade levels were able to make insightful statements about their likes and dislikes. Ex.: "I like making things with my hands," "I like keeping records in an office," "I like interviewing people for jobs," "An assemblyline is boring," "I don't like things like that (gardening)," "I like making things grow," "I want to be the president of an office," "I want to be a paramedic," and many comments like this: ...."I like finding out what I'm good at doing."

Evaluation: Career Education
Middle School - "Hands-On" Experiences

Francis L. Gerner

The "hands-on' phase of Career Education was very successful. The plastics production line (Manufacturing Cluster) was an excellent mock-up of a true industrial production line. Aerospace education (Transportation Cluster) was also an excellent media for exposing the students to modern transportation methods. The Manufacturing and Transportation Clusters were very well received by the students. At the close of this year my students' evaluation of both clusters gave equal high praise and no criticism. I feel that through the Career Education program we are reaching the students' needs for useful and meaningful education. I am proud to be a member of the Career Education staff.

Middle School Career Education Experience

Judy Petropulos

This Career Counselor, through much experimentation, established and met the goals set forth in the curriculum written for the 6th, 7th, and 8th grade students. This Career Education program achieved a successful experience while being presented in a 2-week class session of social studies time with 30-37 students. Recommendation for 1973-74 would be to see classes only once a month for 10 months, during other subjects or guidance periods.

Students enjoyed the many filmstrips, video tapes, and films plus the discussions that followed, but the counselor became very bored seeing them over and over again and having the same discussion sessions (some lessons were repeated 25-45 times). These could be used with larger groups of students, perhaps 70-75 in size for next year.

Career games were especially fun! The students, 30-37 in size, enjoyed coming up in front of their classes, making choices in regard to their career interests or feelings. Counselor had good interaction going with students while playing these games.

Interviewing an adult in the world of work and reporting to the class was very interesting to the students.

Reading the many SRA kit briefs, People and Choices Picture folios, Occupational Outlook Handbook, Dictionary of Occupational Titles and the Concise Handbook of Occupations plus pamphlets, showed the students how to begin researching their own career interests. It proved that the 6th, 7th, and 8th grade students are eager to explore career choices.

Taking the SDS (the Self-Directed Search Inventory) was most enlightening to the 7th and 8th grade students. They were able to put themselves into a Job Personality category and further investigate an occupation of interest to them.

Also, exploring the 15 clusters of work prepared these students for further Career Education programs. The Popeye comic books on career clusters proved very worthwhile. The students couldn't wait to exchange books and read further into other clusters. They even wanted to keep them and take them home.

We did not have time this year for field trips. I had to cover all classes which amounted to over 1600 students.

Filling our Job Applications and discussing them proved to be a fun exercise.

Career Month in May brought 83 career conferences. 48 - Nathan Hale; 35 - West Rocks. Many guest speakers from Connecticut were invited to Nathan Hale on Monday and Friday, and West Rocks on Tuesday and Thursday to speak to small classes of students on careers. Only 8th grade students previously selected what cluster or speaker they wanted to hear. There was very good interaction between speakers and classes. It proved to be a unique experience for this counselor as well as students. I learned a great deal!

The social studies teachers I worked with were very helpful and cooperated a great deal to make my 2 weeks with their classes enjoyable, but they felt that they would not want Career Education to become a permanent part of the social studies curriculum.

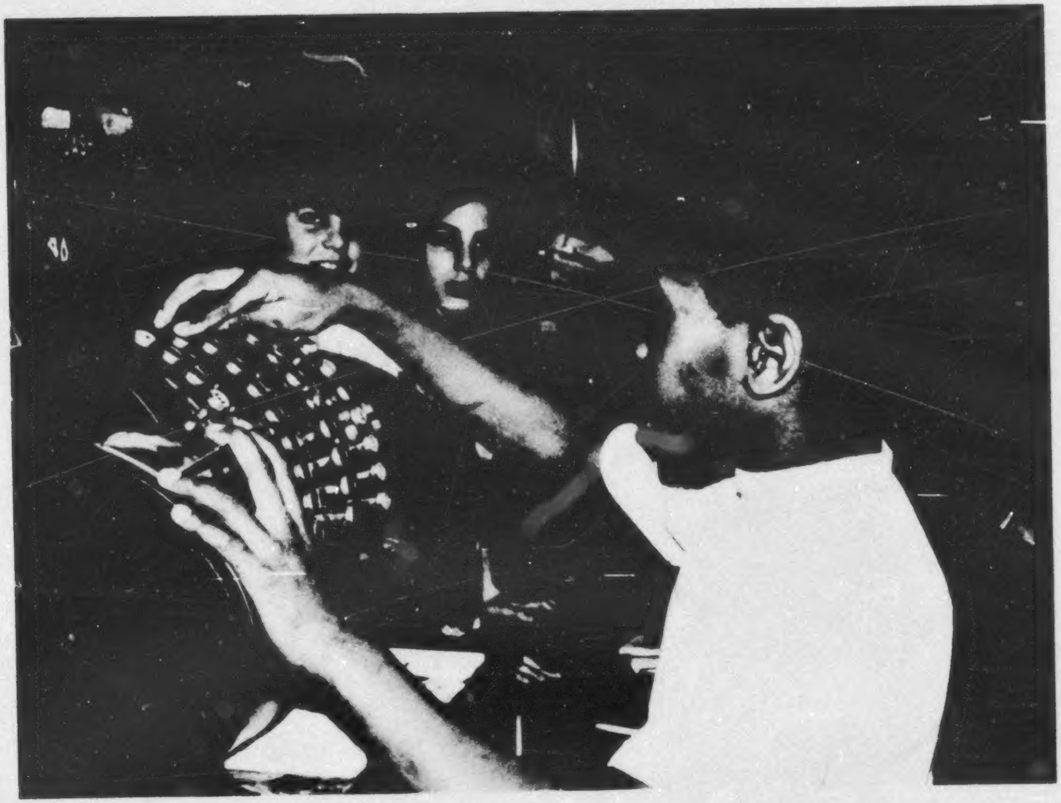
Reading a great deal of career information, writing curriculum, being in classes with students, speaking engagements at conferences, meetings and parents' nights, planning and performing at teacher career workshops, and meeting people from other careers has really made my year as Career Counselor very rewarding.

Because of a creative and interested principal, Nathan Hale is now establishing a Career Cluster Activity Program for 7th and 8th grade students. This program, when implemented, will utilize many of Nathan Hale's teachers.

The middle school concept of Career Education still needs a great deal of creativity for additions and revisions. I recommend that all teachers and counselors in Norwalk take some part in our fantastic Career Education program in the future.

CAREER EDUCATION

Norwalk Public Schools



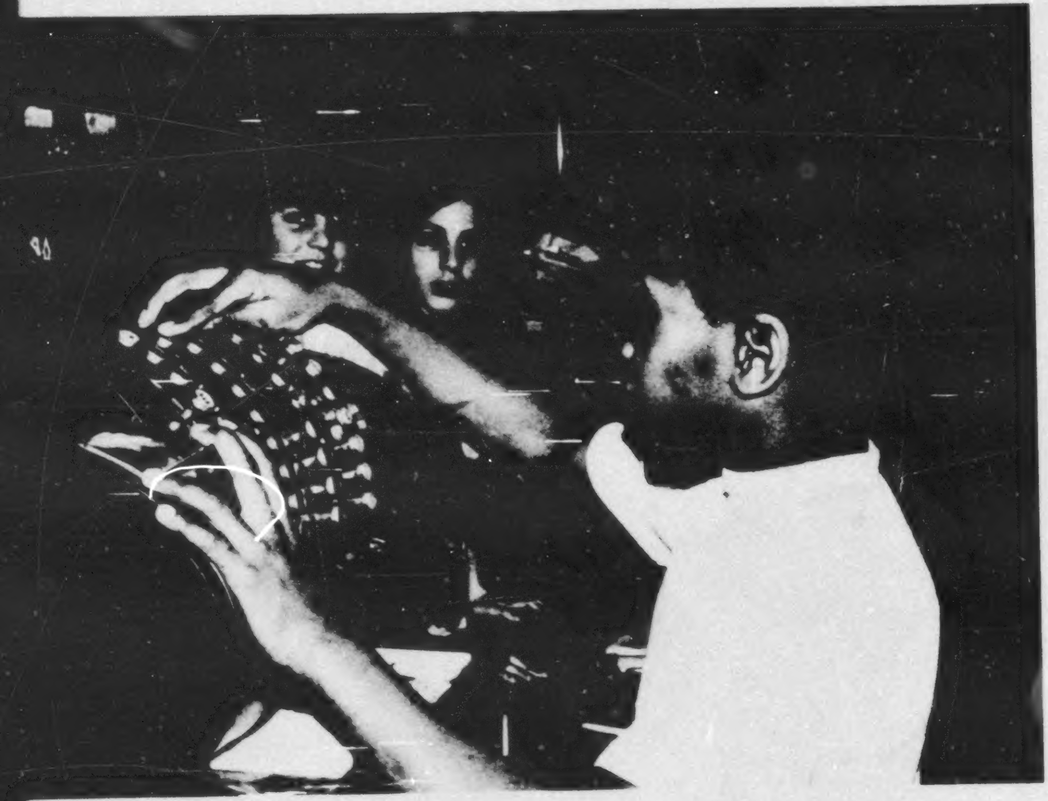
Board of Education

105 Main St.

Norwalk, Connecticut, 06851

AREER EDUCATION

Norwalk Public Schools



Board of Education

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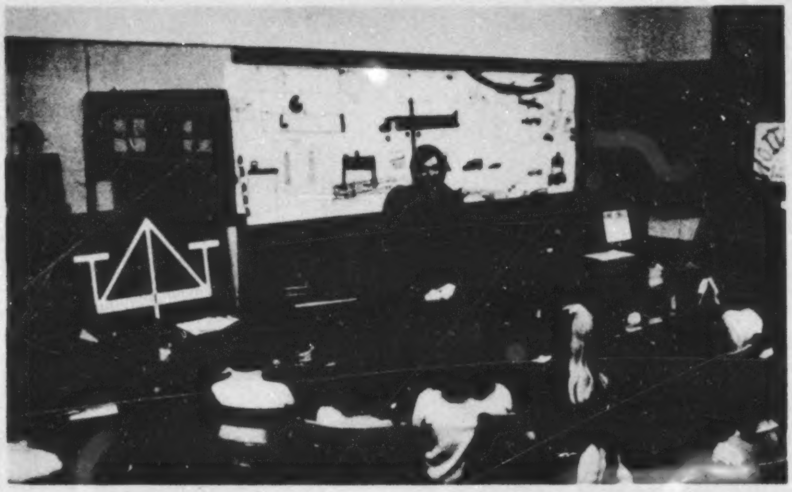
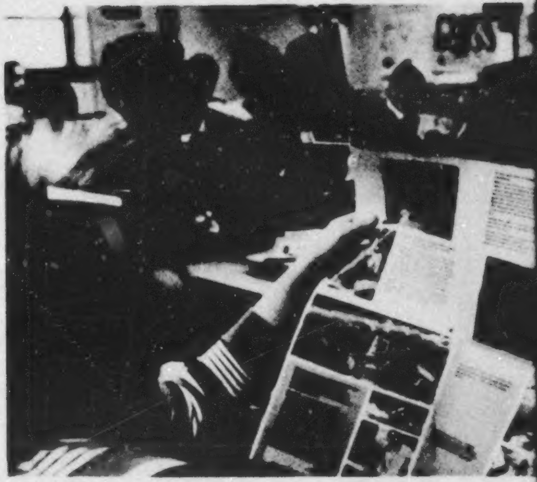
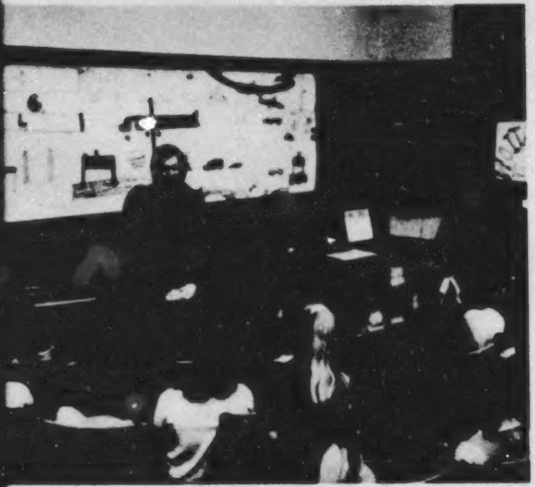


"a visitor to the elementary school"



"students reading information about careers--in the middle school"

photos by W. W. Reilly



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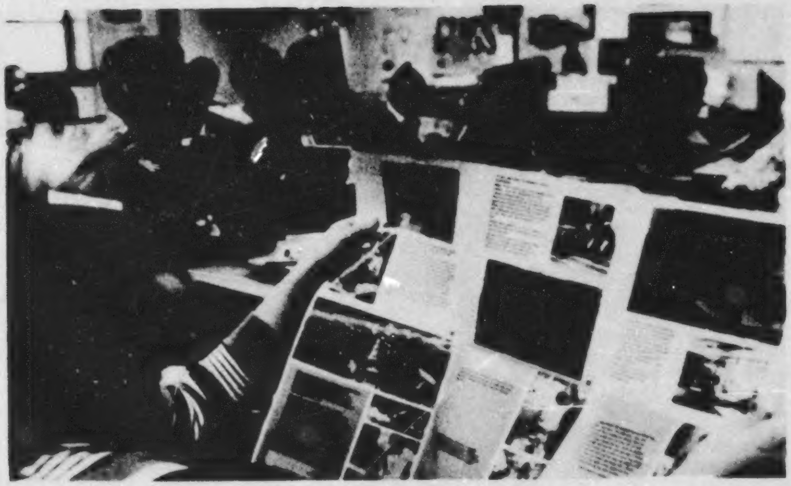

photos by W. W. Reilly

Career Education
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This project is funded through the cooperative effort of the U.S. Office of Education, the Connecticut State Department of Vocational Education and the Norwalk Board of Education.

Career Education
Norwalk Public Schools

City of Norwalk
Hon. Donald Irwin, Mayor

Norwalk Board of Education
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Dr. John Petropoulos, Vice Chairman
Mr. Richard Steeg, Secretary
Mr. Robert Aldrich
Mr. Roger Hanford
Mr. Joseph Hanley
Mr. Philip Penberthy
Mr. Andrew Wise

Administrative Staff
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Dr. Vincent Cibbarelli, Assistant Superintendent for Instruction
Dr. Edward McEnroe, Director of Pupil Personnel Services
Mr. Forrest Parker, Supervisor Practical Arts
Dr. James Medved, Coordinator Career Education

Connecticut State Department of Education
Mr. Joseph Murphy, Associate Commissioner
Dr. Herbert Righthand, Assistant Director Division of Vocational Education
Mr. Errol Terrell, Chief Bureau of Vocational Services
Mr. Saul Dulberg, Career Education Consultant

United States Office of Education
Dr. Sidney High, Project Officer

Table c

Introduction

Elementary Conc

Middle School

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Introduction

Union Trust

"on-the-job observation and work experience--high school"

Commonly--if not universally--one of the most important decisions each of us must make in his or her early years revolves around the question "What will I do with my productive life when I am out of school and no longer reliant on my family?"

Some few young people are self-inspired during their school years, know what they want, and follow through regardless of barriers along the way--whether such barriers be physical, financial, emotional or inertial.

Many more, with family pressure, guidance, and support, know they are going on to further general education or to specific career preparation--and do.

But more than half have neither the personal inspiration nor the family help, pressure, or financial backing to bring about the positive actions and decisions necessary to launch them on a direct career course. It is toward this large group that the thrust of Career Education is primarily directed.

The young person, who must go to work when he or she leaves school, or who neither knows what he wants to do (nor seemingly cares), is that youngster who needs help.

In view of the existence of massive and detailed information on careers and the opportunities they offer

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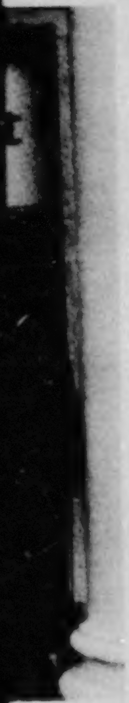

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In view of the existence of massive and detailed information on careers and the opportunities they offer that has been Federally, State and even commercially developed, it is tragic if the uncertain or floundering young person is not given the opportunity (or even required) to undertake a careful self-evaluation and to consider the specific options clearly open to him.

Well-catalogued and indexed job details in straight-forward and understandable language are readily available. Over 40,000 occupations have been arranged into some 15 types (or clusters). Educational requirements, personal qualifications, duties, earnings, fringe benefits, normal advancement rates and current demand are covered with remarkable completeness. Many occupations can be examined with audio visual aids and discussions by directly experienced persons. The need to "stumble in blindly" and pray is minimized.

One may argue that those who are self-inspired or those whose future courses are otherwise established have no need for Career Education in public schools; further, that it would be wasteful to force such an exposure on them. The other side of this coin is, that knowledge of the problems of other people can only be broadening, and that information on "How Best to Know Yourself and to Choose a Career" can only be helpful. Properly presented, the acquisition of such knowledge is another step toward a complete education and will be permanently valuable whether directly used or not.

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The school system in 1972-73 included 17,823 students--8,673 elementary, 4,020 middle school, 4,632 high school, and 498 in special educational programs. Minority groups of the total school enrollment included 18% black and 4% Spanish-speaking. Bussing is utilized to accomplish a uniform school balance.

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The Norwalk Career Education Program--developmental and experimental in nature--has been carried on in one high school, two middle schools, and three elementary schools. Success to date clearly warrants the extension of the program throughout the entire school system, consisting of two high schools, five middle schools, and eighteen elementary schools.

The balance of this brochure is devoted to a statement of objectives at each of the three school levels with accompanying illustrations to demonstrate the various devices and methods used.

"career games--middle school"

Norwalk and its School System

Norwalk is a city of 83,000, forty-three miles from New York. It is home to many commuters but is also an industrial center. It is estimated that about as many people commute "in" to Norwalk's industrial shops as "out" to New York. There is a large minority group of black and Spanish-speaking people.

The school system in 1972-73 included 17,823 students--8,673 elementary, 4,020 middle school, 4,632 high school, and 498 in special educational programs. Minority groups of the total school enrollment included 18% black and 4% Spanish-speaking. Bussing is utilized to accomplish a uniform school balance.

National Trends and Norwalk's Current Position

The basic concept of educating toward specific careers is not new, but in recent years has gained a constantly increasing acceptance across the nation. President Nixon has assigned a high priority to further expansion of the country's programs in this direction, and the Congress has appropriated substantial funds for the refinement and extension of existing programs and the development of new ones.

On this latter point, Norwalk--alone among Connecticut's school systems--was signally recognized in late 1971 with a Federal Grant of $99,000 (awarded by the State Department of Education) which along with other State and Local aid was to develop, evaluate and refine new methods. The funded project was scheduled to start January 1972 and be completed before July 1973.

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Elementary Schools

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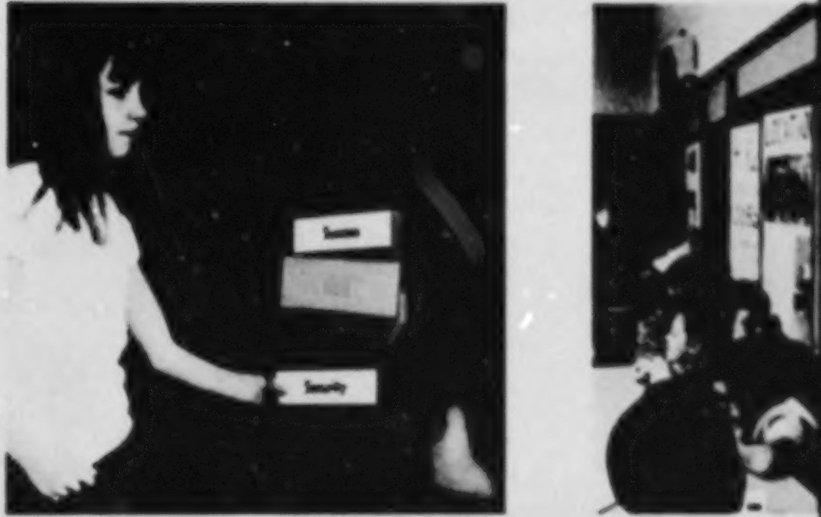


Career Education in the elementary schools is designed to generate "career awareness." Students are shown the broad range of options open in the general "world of work." The nature of work in Norwalk and the economic significance of its population make-up and geographic location are studied.

Elementary Schools

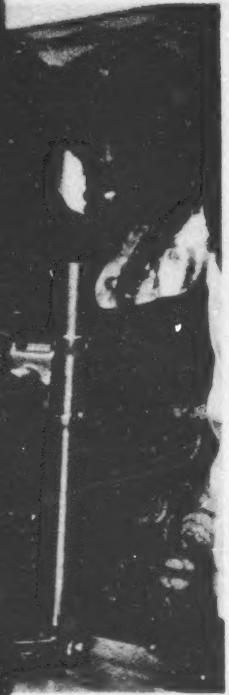
"career games"

"a manufacturing process"

WORK SIMULATIONS
OF THE CLUSTERS

"the supermarket"

The "dignity of work" and the "pride in any job well done" are repeatedl Careers are discussed during all elemen years, but emphasis on classifying r into families or "clusters" comes in the grades.



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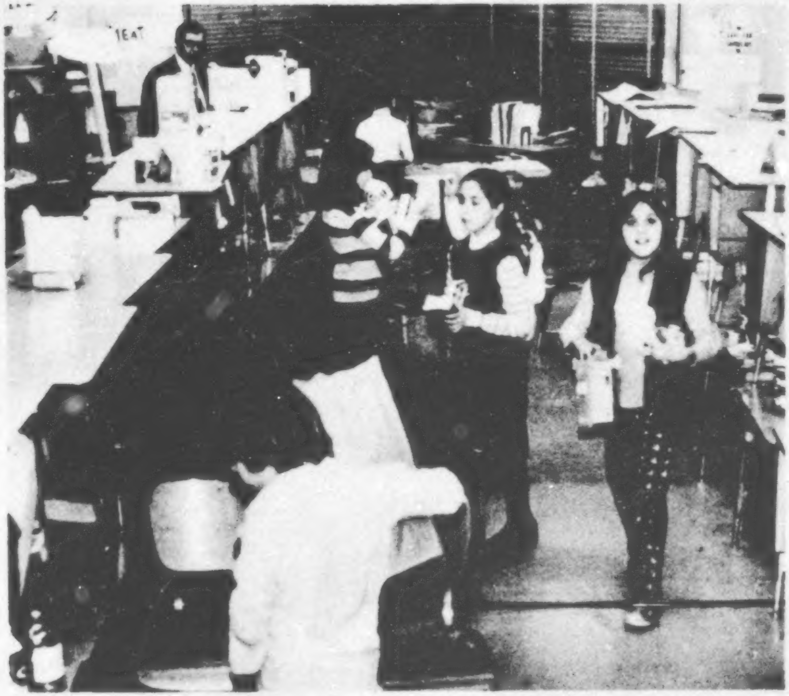
The "dignity of work" and the "pride to be found in any job well done" are repeatedly stressed. Careers are discussed during all elementary school years, but emphasis on classifying related jobs into families or "clusters" comes in the 4th and 5th grades.



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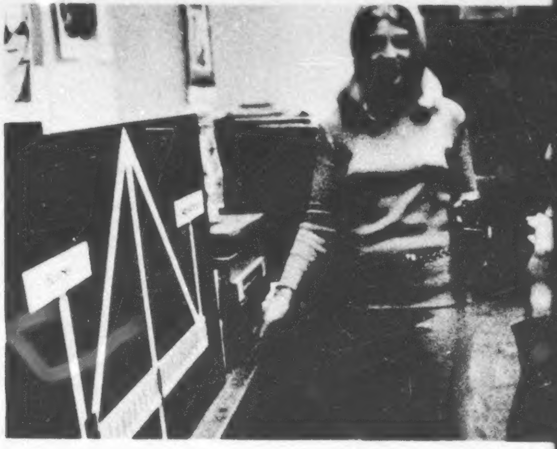
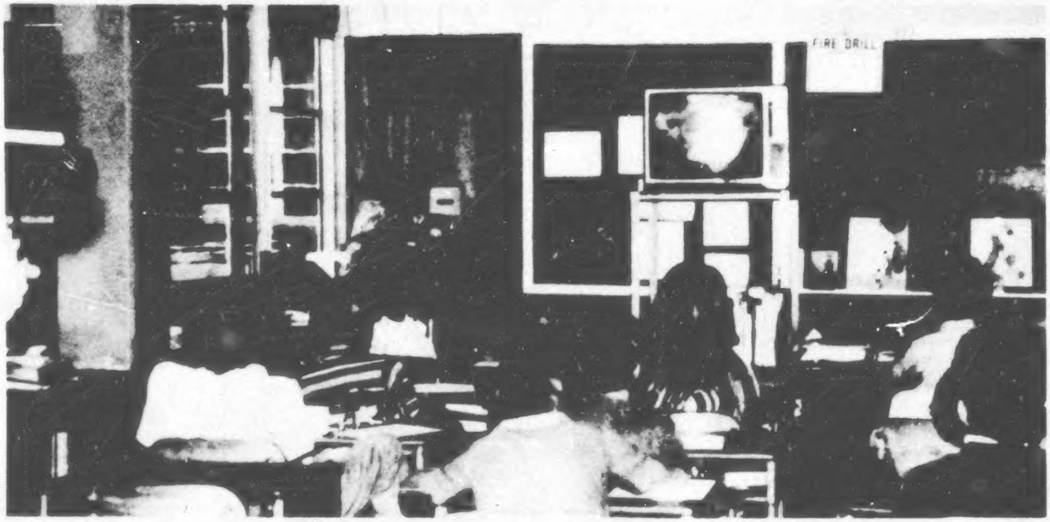


Middle Schools



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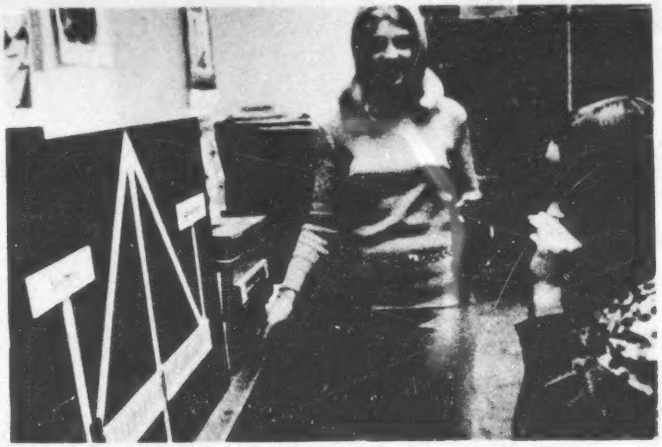
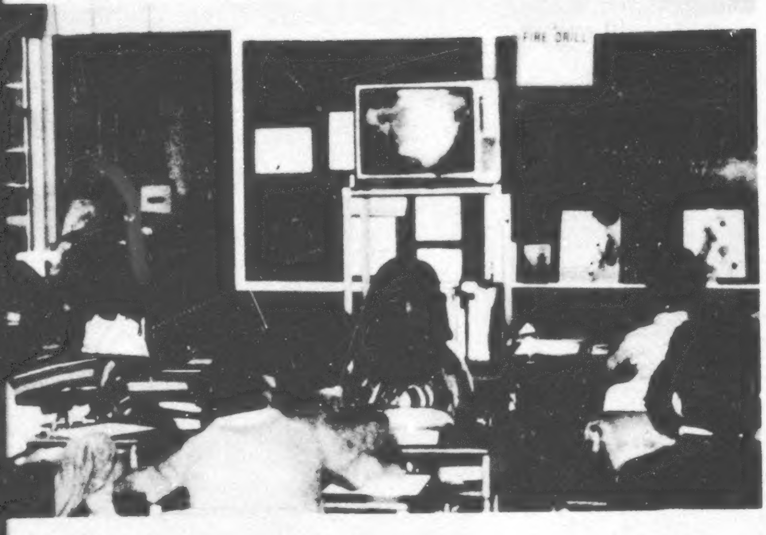


Middle Schools



"the use of closed-circuit television, video tapes, and other audio-visuals"

In grades 6-7-8 the Career Education program is refined and expanded. It now provides career orientation and the beginnings of career exploration, utilizing unified arts programs and equipment. During career exploration, "hands-on" experiences are provided in simulated work settings and organizations representative of different clusters. Middle school career orientation involves the study and discussion of the nature of work--requirements, attitudes, abilities, and skills. Students examine their own interests and aptitudes as they relate to their career potentials--the work options and job alternatives reasonably open to them.

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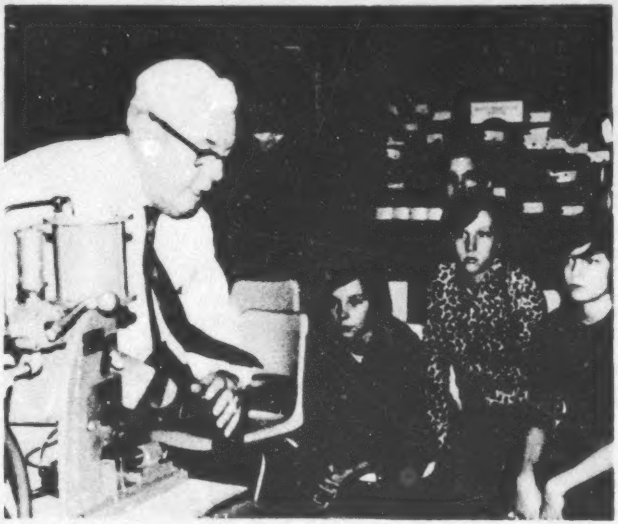
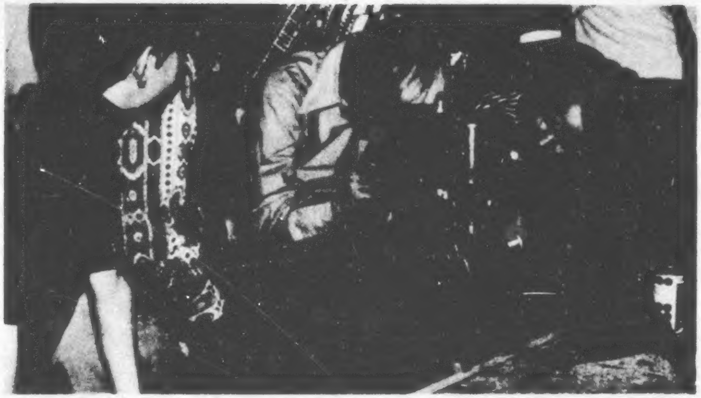


"'hands-on' experiences in
simulated work settings"



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The devices used are tabulated and/or briefly discussed in the following listing:

a. Experienced teaching to insure that the student understands and knows how to use the awareness and detailed files covering thousands of occupations.

b. The time and opportunity to study these files in detail and to discuss the questions they raise as related to those "careers of interest."

c. Lectures by visitors, expert in their fields.

d. Visits to Commerce and Industry (in groups or individually)

e. Experienced career counseling (on request)

High Schools

ploration, using audio-visuals"

"experienced career counseling"

There are three primary objectives for Career Education in the High Schools. They are: a closer approach to adequate self-knowledge; general knowledge on many promising careers and the opportunities they offer; and, more detailed study of those which are of personal interest. Ideally, there is a sharpened combined focus of self-evaluation and career choice through "orientation, exploration and preparation." It is intended that each student leave school with a salable skill for prompt use, or as insurance if other plans fail to bear fruit.

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g. Career Motion Pictures

h. Surveys of Graduates

i. Pertinent work experience--"In Service"

j. Job placement

An additional program for well motivated and ambitious students involves "Specialty Cluster" projects which carry further into job and career skills. To date these have included:

1. A Construction Cluster--calling for the conception, planning, building and wiring of a 10' x 24' x 10' house section.

2. A Communications Cluster--involving "High Times," the Norwalk High School student newspaper, and (in its formative stage) the planning, creation and broadcast of a weekly ½ hour Radio Program directed to the Senior Citizens Club of Norwalk.

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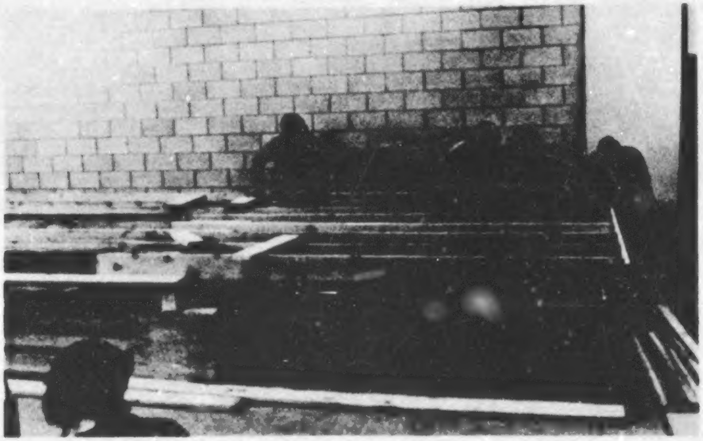
"work on the construction cluster"



f. Career Conferences (about 15 of these yearly--2 hours to portions of 4 days in length). During 1973 these will have included:

Motor Mechanics
Marketing and Distribution
Health
Public Service
Construction and Manufacture
Communications Media

Foreign Language
Business and Office
Mathematics
Environment
Fine Arts
Consumer and Home Making
Recreation

This program will be continued.

g. Career Motion Pictures

h. Surveys of Graduates

i. Pertinent work experience--"In Service"

j. Job placement

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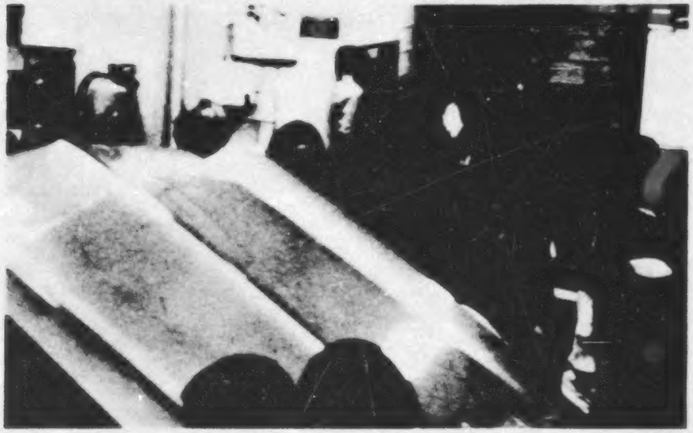

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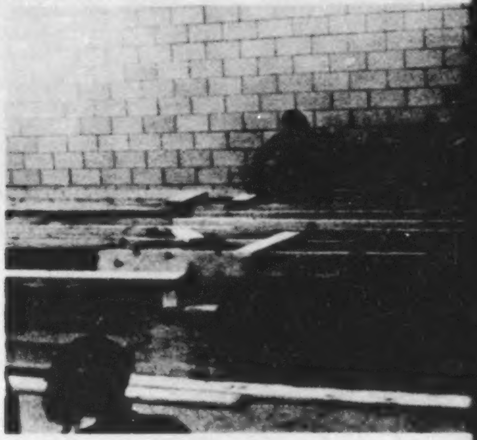

APPENDIX N

Research Evaluation Design

This proposal describes a research design to evaluate the Norwalk Career Education Project. The design will enable the researchers to assist in the on-going development of the program as well as in assessing its effectiveness.

It is understood that appropriate behavioral objectives will have already been constructed for the program before the research team assumes its duties. We, the research team are in accord with the use of planned pupil outcomes to promote pupil attainment. While the mere information that pupils have or have not attained particular outcomes is not useful _per se_ for program-improvement purposes this information is most helpful in evaluating the effectiveness of program processes related to each outcome and in identifying individual pupils who need additional attention on specific outcomes. Additionally, information obtained from assessment of the effectiveness of program processes for each outcome will lead to further selection and designing of processes that should prove more effective in promoting their attainment.

It is, of course, recognized that specific objectives and criteria for measuring these objectives should be clearly defined during the developmental phase of the project. That is, evaluation ought to be designed in as a basic component of the program itself. This ideal of built-in evaluation with behaviorally defined objectives and criteria for measuring these objectives is obviously complicated. For example, it is understandably difficult to anticipate and operationally define all objectives at the onset of the program since the program is dynamic and thus the objectives might change considerably over time, resulting in the bypassing of subsequently recognized important goals.

Given the foregoing considerations, which the project in its present state acknowledges, it would be inappropriate to detail a specific sequence of evaluative measures and criteria. Consequently this evaluation model is presented in broad steps with provision for flexibility to supplement and modify these steps and the general procedures so as to adapt them to the evolving project and to situational limitations dictated by unique characteristics of the individual schools involved in the project.

The proposed evaluative research design will utilize several current evaluative approaches appropriate for "objectives-based" programs. Put most simply the design will employ measurement procedures along three different dimensions.

1. Criterion-referenced and Norm-referenced Evaluation

Criterion-referenced measurement involves assessment of pupil attainment of specific outcomes. Did the students(s) attain the intended outcome being assessed?

Norm-referenced measurement is concerned with an individual's performance in relationship to other individuals. Where does this individual rank in comparison with the others?

2. Formative and Summative Evaluation

Formative evaluation describes the evaluation of educational programs that are still developing. The evaluation activities are designed to identify weaknesses in on-going programs so that appropriate revisions can be made.

Summative evaluation describes the evaluation of a program for the purpose of deriving descriptive statements with respect to the effectiveness of that program.

3. Comparisons Within and Between Groups Evaluation

Pupil scores on the standardized instruments (vocational maturity scale, occupational and educational information awareness scale, and vocational destiny control scale) will be analyzed to illuminate differences *among* groups within the treatment group (Nathan Hale pupils compared to West Rock pupils) as well as *between* the treatment and control group.

The three dimensional evaluation design will enable the researchers to report data concerning the following:

1) the degree to which students attained specified outcomes.
2) the comparative ranking of any student or group of students in terms of outcome attainment.

3) the identification of least and most successful intended outcomes in terms of numbers of pupils able to attain them.

Such identification during the ongoing development of the program will promote changes in the specified criteria necessary for outcome attainment or the program processes which purport to lead to the outcome attainment.

4) descriptive statements about the effects of the program in meeting its intended objectives,
5) the identification of students or groups of students within the program who were most and least successful in attaining the specified outcomes,
and
6) comparative statements concerning the vocational maturity, awareness, etc. of treatment groups and control group students.

Broadly conceptualized steps in the evaluation model:

Step 1: Orientation and Planning Conference

a) including representatives from all participating schools

b) overview of Career Education Project (including behavioral objectives as developed)

c) presentation and discussion of research evaluation model

d) collaborative modification as deemed appropriate to bring evaluation model and project model "in-phase"

Step 2:* Monitoring project progress

a) assemble and analyze reports and other data from participating schools and project personnel to determine extent and effectiveness with which program activities have been implemented.

b) consultant site visits - periodic (approximately twelve field visits) on-the-spot observations including planned-structured interviewing with project staff as well as with participating students.

Step 3:* Instrumentation

a) comparison will be within program as well as with control group

b) quantitative measures will concentrate on changes in performance as well as with absolute levels of performance based on pre-specified criterion levels

*Steps 2 3 and 4 will be simultaneously executed and be on-going for the duration of the project.

c) measurement will be based on both instrument performance as well as objective related sub-task performance

1. Analysis of each objective
2. translation into behavioral terms
3. identification objective-related instrument items and/or sub-tasks
4. determination of criterion levels of student performance

Step 4. Periodic interim-reports (dates to be scheduled at the orientation-planning conference)

a) approximately four reports

b) reports would be prepared to give feedback to the project with respect to steps 2 and 3.

Step 5. Data collection and analysis

a) administration of appropriate instruments and quantification of sub-task performance

b) we are planning to use the "Post-test Only Control Group Design" for analysis of the standardized instrument scores (Campbell and Stanley, 1967.) The feasibility for the employ of this design will be discussed at the "orientation and planning conference."

c) statistical procedures must be tentative at this point and will obviously be dependent upon the nature and distribution of the data (it seems likely that both descriptive and inferential statistics will be employed.)

Step 6. Preparation and transmittal of final report

*On the basis of the Career Education Project proposal as stated it appears likely that in addition to using several of the available standard instruments (e.g. vocational maturity, vocational awareness etc.), a vocational control (destiny control) instrument would be appropriate. While the basic instrument would be an adaptation of the Rotter and Coleman scales - it would have to be specifically constructed for application to the Norwalk Project. The research team would avail themselves of the expertise at Teachers College in vocational development and instrument development in the designing of this instrument.